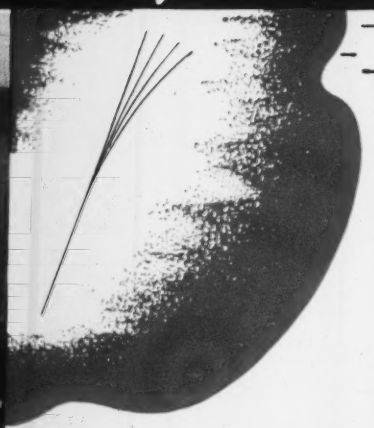
ENGINEERING NEWS-RECORD

Timber arches of 110-ft. span are used for drill hall at Ottumwa, Ia., naval station

Hair-Splitting Exactitude . . .

Zeiss Toolmaker's Microscope being used for checking dimensions of newly purchased tap against accurate thread form standards.



TO 1/100,000 OF AN INCH!

PRECISION DIMENSIONAL CONTROL ASSURES ACCURACY AND LONG LIFE

in PITTSBURGH-NATIONAL WATER METERS

A human hair is approximately 3/1000 (.003) of an inch thick. Imagine, if you can, splitting a hair into 300 equal parts and being able to measure each individual subdivision. This graphic example is used to illustrate the almost infinitesimal dimensional measurement that is accomplished every day in the Standards Department of the Pittsburgh Equitable Meter Company.

This department, which developed out of the normal demand for manufacturing accuracy in volume production, was originally installed in 1937 and has been greatly expanded since. Many of this company's achievements in handling wartime projects would have been impossible without the dimensional exactness that is provided through our Standards Department. *We have recently been awarded the "A" rating of the Army Air Forces for quality control.*

Accuracy in the performance of meters made in large production is of necessity dependent upon the accuracy of the tools, jigs and gages that guide the machining and assembly procedures. The hair-splitting exactitude to which these manufacturing appurtenances are held by Standards control assures an accurately made and fitted product, capable of a long and useful life.

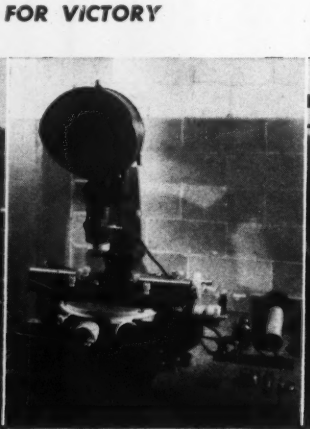
PITTSBURGH EQUITABLE METER COMPANY

BOSTON, BROOKLYN, COLUMBIA, BUFFALO, HOUSTON, CHICAGO, KANSAS CITY — **MERCO NORDSTROM VALVE COMPANY**
Main Offices, Pittsburgh, Pa.
NATIONAL METER DIVISION, Brooklyn, N. Y.
LOS ANGELES, MEMPHIS, NEW YORK, PITTSBURGH, SAN FRANCISCO, SEATTLE, TULSA

INVEST TODAY IN BONDS FOR VICTORY

General View of Equipment in Standards Room. These quarters are air-conditioned to assure normalcy while tools, gages and parts are tested.

Jones and Lamson Pedestal Comparator and Measuring Machine being used to check a tap for wear after service.



The Zeiss Toolmaker's Microscope in use checking a production part for correct contour against the standard outlined on the projection screen.

Pratt and Whitney Measuring Ma... The Micrometer Graduated ... reads directly to 1/100,000 of an...

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • JULY 8, 1943 • VOLUME 131 • NUMBER 2

Contractors study markets for construction industry

Vital economic and production aspects of the construction industry's present and postwar activities are thrashed-out by the Associated General Contractors.

Development of present and future construction markets held the serious attention of the 165 executives and secretaries of the several branches of the Associated General Contractors assembled in Chicago, June 28-30, for the meeting of the governing and advisory boards of the association.

In reviewing the construction activities of the association during the past two years, its president, Oscar B. Coblentz of Baltimore, Md., asserted that private initiative, if unhampered by the federal government, will go a long ways toward preventing unemployment after the war and removing the need for a WPA. He pointed out that members of the association have built three-fourths of the nation's war plants and have completed most of them ahead of schedule, despite added clerical work required by the government and despite slow-downs caused by awaiting approval of various government agencies.

Overseas construction

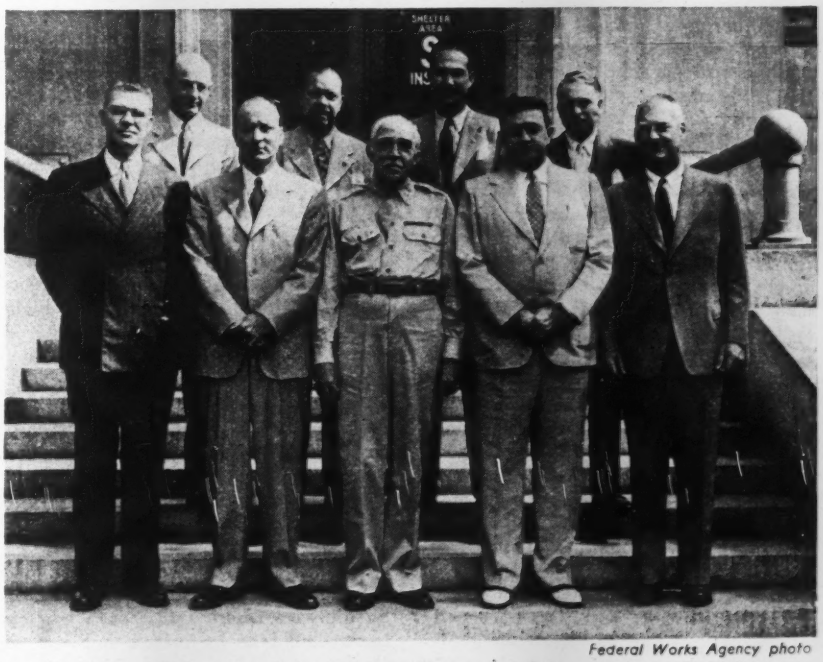
Speaking at a dinner meeting of the association, Brig. Gen. C. L. Sturdevant, Assistant Chief of Engineers, U. S. Army, reported that Army construction at home this year will be only 30 percent of last year's $5,000,000,000. Telling how thorough preparation has aided victories in North Africa, the Pacific and elsewhere, he said construction jobs in war theaters are large and varied, and require both skill and the ability to fight.

Reviewing the progress of the Army's construction, he asserted that a $10,000,000,000 program had been completed by the nation's contractors during the last three years. Gen. Sturdevant commented the association on its truly remarkable accomplishment in war construction and pointed out that without the output of men and machines of war from the installations constructed by American contractors, the Allied Armies could not have gained the remarkable victories achieved in recent months.

As our overseas forces expand and as we go forward, more and more specialists are needed by the Corps of Engineers, said Gen. Sturdevant, and with the peak of this country's construction program already past, men from the construction industries are enlisting their skills for service in uniform in increasing numbers—for service overseas. This country needs their skills in the war zone, he said, and it is also to their interest to be assigned to duties where they may continue to sharpen their skills rather than to allow them to drift into other fields where such skills will become dulled,—and where they will not be able to make their greatest potential contribution to the war.

In this way, he continued, these specialist engineers will come out of the war as better men in their field, with greater ability to fit into the postwar period. He ended his talk with a strong appeal to the construction industry for its help in enlisting specialists for the Corps of Engineers to build and fight in the overseas combat zones.

The relation of the construction industry to postwar employment was discussed by Maj. Gen. Philip B. Fleming, administrator, Federal Works Agency,



Federal Works Agency photo

Federal Works Administrator and his regional aides

Maj. Gen. Philip B. Fleming, Administrator of the Federal Works Agency and its constituent agencies, called the FWA regional directors to Washington June 22–24 for conferences on the war public works and the war public services programs. The meetings were held in the North Interior Building and the conferees were: Top row (left to right) C. W. Anderson, Region 6, St. Paul; Oliver T. Ray, Region 3, Atlanta; Rex Nicholson, Region 7, Berkeley; John M. Gallagher, Region 1, New York. Bottom row: Lawrence Gillette, Region 4, Chicago; Baird Snyder, assistant administrator; General Fleming; Kenneth Markwell, Region 2, Richmond; James W. Bradner, Jr., Region 5, Fort Worth.

who painted a dark picture of the period immediately following the cessation of hostilities. Said General Fleming:

"I think we can see here in broad outline the situation with which we are pretty certain to be confronted; a rather protracted period of reconversion, the possibility of relatively large-scale unemployment until the reconversion process is completed, continuing high taxes, a continuation of rationing of certain commodities and possibly a continuation for a time of the priority system as respecting types of materials."

Some doubt was expressed by Gen. Fleming as to the millions of home-coming war veterans being able to find well-paying jobs immediately in private industry; he pointed out that there is a strong probability that many of them will be without jobs for a long time unless proper provisions are made in advance.

As necessary aid in the recovery of private business after the war, Gen. Fleming advocated a large scale postwar public-works construction program. Such a program, he cautioned, should be well conceived and carefully planned. Monumental public buildings must not be built in towns that have a greater need for sewer systems; magnificent airports should not be provided for cities that do not need great airports, and six-lane super-highways should not be constructed in rural areas when present higways are entirely adequate to meet the traffic needs.

Local planning needed

Immediate home-town planning for postwar public-works projects rather than waiting for action by Washington central agencies was urged by G. Donald Kennedy, vice president of the Automotive Safety Foundation, and chairman of the A. S. C. E. committee on postwar construction. Mr. Kennedy asserted that this nation may experience another period of wasted billions through Federal WPA and CWA activities unless cities and states adopt adequate postwar plans.

Individual members of the entire construction industry should cooperate more closely with local civic leaders and city planners in promoting the construction of many worthwhile local projects that merit immediate action following the cessation of hostilities. Kennedy asserted that the yearly national income must be maintained at about 150 billion dollars to provide enough jobs to avoid an economic and social crisis. About 16½ billions of this will be public and private construction, he said, of which about one-third is expected to be the limit we can spare for public works. He expressed the opinion that private construction should get first call, because the primary postwar need will be for facilities to provide consumer goods for people whose dammed-up purchasing power will carry the inflation danger right over into the postwar period.

Conditions necessary for a satisfactory postwar construction market, according to Edward P. Palmer, past-president of A.G.C. and chairman of construction and civic development committee, U. S. Chamber of Commerce, are "(1) funds in the hands of corporate and private investors to undertake the work which must be done in the future, and (2) confidence that the country will pursue sound economic policies." Construction is more dependent than any other industry upon a firm and lasting confidence in the future of the nation, is the opinion of Mr. Palmer. Unless there is confidence in the future, he said, and unless the funds are in the hands of investors, there is no escape from the method of financing which is characteristic of the totalitarian form of government in which the federal government is the only banker and the only lender, and under such a system private enterprise could not survive.

High-level production needed

That the construction industry must be the advance guard in winning the peace just as it was the advance guard in war construction, was pointed out to the assemblage by Paul G. Hoffman, president of the Studebaker Corporation, and national chairman of the Committee for Economic Development. Emphasis should be placed on high-level production, said Hoffman, instead of on high-level employment because all material wealth comes out of production. In order to avoid the problem of potential postwar unemployment we must take advantage of every technological development that has accrued to us during the war, he said. He further expressed the opinion that these high levels of production and employment must be attained quickly when peace comes because too much unemployment over too long a period is a direct invitation to dictatorship. He asserted that such employment should be by private industry, as much as possible, because it is generally recognized today that if government furnishes too much employment for too long, similar results will obtain. Regimentation will replace free enterprise, he said, and pressures created by either too much unemployment or by too much government employment for too long spells death to a free country. Two points emphasized by Hoffman were that private enterprise must start immediately. To plan postwar products and markets, and that the environment in the postwar period must be favorable to the expansion of a free economy

Subsequently, a resolution was adopted calling for close cooperation of the national association chapters with the Committee for Economic Development.

Awarding of contracts

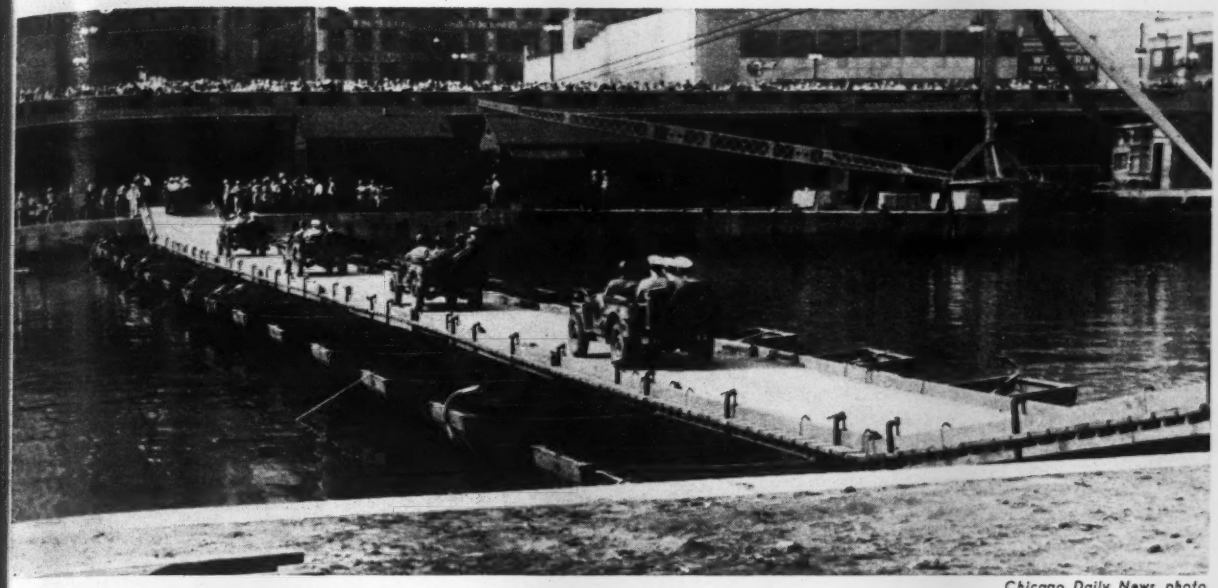
H. E. Foreman, managing director of the A.G.C., reported that the awarding of contracts by the war construction agency is gradually branching away from the fixed-fee contracts and the lump-sum contract, awarded in the normal manner on bids received, to a negotiated lump-sum type of contract. This shift in policy, said Foreman, was noticeable earlier in the case of the Corps of Engineers and the Civil Aeronautics Authority, but the Navy's Bureau of Yards and Docks now is changing policy in that direction.

"This change in contract procedure comes at a time when we are most rapidly entering a buyer's market rather than a sellers' market, for many construction contractors were well supplied with work. The result is that there has been considerable dissatisfaction expressed by many contractors with the manner in which negotiated lump-sum contracts are awarded in some areas. This has been particularly true with reference to the award of the Civil Aeronautics Authority for airport construction and some work of the Corps of Engineers.

"It is recognized that any procedure which provides any form of substitute for the policy of awarding to the low bidder will result in great dissatisfaction at a time that competition is extremely keen for the work," said Mr. Foreman. He added that this general dissatisfaction apparently springs from a belief by contractors that after they have made a bid or quotation, as is required under the procedure, the negotiations which follow practically constitute an auction of the job with repeated opportunities for bidders to make repeated offers, which process has in the past resulted in the award of work at prices below reasonable costs and in this day, when such great hazards prevail, many contractors feel that such

(*Continued on page 6*)

ENGINEERING NEWS-RECORD. Published every Thursday. **Return postage guaranteed.** Vol 131, No. 2. Price 25c per copy. Allow at least ten days for change of address. All communications about subscriptions should be addressed to the Director of Circulation, 99-129 N. Broadway, Albany, N. Y., or 330 West 42nd Street, New York, N. Y. Subscriptions, United States, U. S. Possessions and Latin American Republics, $5.00 for one year, $8.00 for two years, $10.00 for three years. Canada $5.50 for one year, $9.00 for two years, $11.00 for three years. Great Britain and British possessions 54 shillings for one year, 108 shillings for three years. All other countries, $9.00 for one year, $18.00 for three years. Entered as second-class matter October 29, 1936, at the Post Office at Albany, N. Y. under the Act of March 3, 1879. Printed in U.S.A. Cable Address: "McGrawhill New York." Member A.P.B. Member A.B.C. Copyright 1943 by McGraw-Hill Publishing Company, Inc. James H. McGraw, Founder and Honorary Chairman; James H. McGraw, Jr., President; Howard Ehrlich, Executive Vice-President; Mason Britton, Vice-President; B. R. Putnam, Treasurer; Joseph A. Gerardi, Secretary; J. E. Blackburn, Jr., Circulation Manager. **Publication office: 99-129 North Broadway, Albany, N. Y. Editorial and Executive Offices: 330 West 42nd St., New York.** District Managers and Branch Offices: Fred G. Hudson, 520 N. Michigan Ave., Chicago; J. W. Otterson, 68 Post St., San Francisco; Aldwych House, Aldwych, London, W. C. 2, England; Washington; J. M. Spackman, New York; A. B. Cozzens, Philadelphia; E. E. Duff, Jr., Cleveland; B. F. Horn, Detroit; Richard Y. Fuller, St. Louis; R. N. Phelan, Los Angeles; J. I. Ballard, Boston; Ralph Maultsby, Atlanta, Ga.



Chicago Daily News photo

Army Engineers bridge Chicago River in 55 minutes

Demonstrating the present-day principles of ponton construction, members of the U. S. Army Corps of Engineers bridged the Chicago River recently in celebration of the 168th anniversary of the organization. Construction of the 273-ft. ponton bridge in 55 minutes and its subsequent removal in 40 minutes was comparatively slow time, remarked one of the army officers in charge, who added that under the spur of enemy fire the job could have been done in about half the time. The idea of the river-spanning performance, he pointed out, was to demonstrate to Chicago's war workers and civilians the art of ponton construction. Built of steel pontons and decked with heavy timber planking, this 10-ton capacity bridge safely carried several jeep-loads of army officers and city officials.

Charter restrictions to "competitive plans"

Unable to get the unanimous consent of the Board of Aldermen and the Board of Apportionment to provide funds for consulting engineering service, the city of Derby, Conn., has been compelled to ask for "competitive plans" for the design of sewage disposal facilties. This is the explanation given for the advertisement appearing in the June 17 issue of *ENR Construction Reports* (page 149), concerning which protests have been raised that such practice proposes a violation of professional ethics.

Interviewed by a *News-Record* reporter, Derby officials pointed out that they are making no attempt to initiate a practice contrary to established professional ethics. The situation is this: The charter of the city calls for a unanimous vote of both the aldermanic and the apportionment boards before an expenditure of public funds can be made above a specified sum. Every effort has been made, it is said, to procure the unanimous consent required for an expenditure to employ an engineer, but all attempts have met with failure. Therefore, it was decided to break the deadlock by asking for competitive bids.

Derby is under orders, issued earlier in the year by the State Water Commission, to take steps to improve its sewage disposal facilities. The orders call for preparation of working plans and specifications of a treatment plant.

Well-informed sources state that in situations such as that at Derby, it may be possible for the city officials to prepare a detailed outline of the work to be done and send copies of this to a number of selected engineers specializing in sanitation. Interested engineers are requested to submit an estimate of the cost for doing this work. The responsible officials then arrange conferences with the different engineers, and thus are in a position to make their selection without actually placing the engineers in competition.

• • •

Earthfill dam in Idaho fails in sudden slump

Sinker Creek Dam in Owyhee County, Idaho, failed at midnight June 19, 1943. It was an earth fill structure 70 ft. high, 1,100 ft. long on the crest, 200 ft. long on the bottom and impounded 2,700 acre-ft. of water. The reservoir was full at the time of the failure. For the following account *Engineering News-Record* is indebted to Geo. N. Carter, of Boise, Idaho, who visited the dam after the break.

The breach (about 300 ft. measured along the crest at the section of maximum height) shows evidence of having occurred almost instantaneously throughout the full height of the dam, rather than by progressive downward sloughing. This belief is confirmed by the fact the reservoir emptied in two hours.

The flood wave reached heights of 40 ft. in the narrower canyons and along at least one stretch advanced at the rate of 30 m.p.h. Ranches were seriously damaged, farm buildings, land, and irrigation ditches washed away. An 11,000-kw. power plant on Snake River at Swan Falls, four miles downstream from the mouth of Sinker Creek, was shut down for 24 hours by accumulation of debris in the forebay.

The dam was built in 1910 by hydraulic fill methods and raised in 1921 with dumped fill. The reservoir filled unusually early this year and water had been running through the spillway since February. The sustained full reservoir level had entirely saturated the earth embankment from bedrock to near the crest level. The fill was founded on basalt bedrock with one very low, ineffective cutoff wall not keyed into rock.

Private capital furnished the money for construction of the dam which is now owned and operated by the Murphy Irrigation District.

• • •

Road equipment for farms

The Iowa highway commission has informed the federal Department of Agriculture that it will release 154 out of a total of 287 horse-drawn mowers for agricultural use.

Fig. 1. One portion of McKnight Road, now under construction, required a 350,000-cu. yd. cut 1,500 ft. long and of 120-ft. max. depth.

Work Continues on Pittsburgh Expressway

Critical material allotments expected by Alleghany County, Pa., will permit construction of McKnight Road leading North from Pittsburgh to continue this year. Over three miles of the road are completed and sufficient materials are expected to be available to complete the 2-mi. closing section between the completed portion and the city.

McKnight Road, as shown in Fig. 2, leads almost directly North from Pittsburgh on an excellent alignment and grade. The highway is being built on an 80-ft. right-of-way and will consist of two 24-ft. roadways of 2-in. crown and a 13-ft. shoulder on each side of a 6-ft. center island.

Wide approach street to highway

All traffic traveling across the northern part of the city to reach the highway can follow East St., which is exceptionally wide, almost free of curves and crossed by only half a dozen streets in nearly two miles. Upon reaching McKnight Road, a four-lane, divided highway free of stop signs and nearly 7-mi. long, will be available, if the work now under way or planned can be completed. Such a route would be several miles shorter than the best alternate routes available and far superior as to alignment and grade. When McKnight Road is completed, the traffic of U. S. Route 19 (The Perry Highway) doubtless will be routed over the new construction, instead of over a present crooked and congested highway.

A view of a completed portion of the highway is shown by Fig. 3. This part of the highway was built in three sections

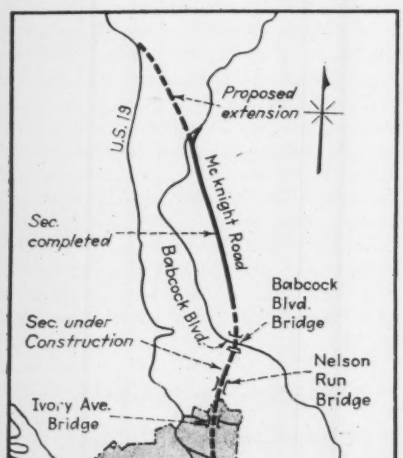


Fig. 2. When completed McKnight Road will provide a northern express connection to Pittsburgh several miles shorter than alternate routes.

and it was opened to traffic in 1940.

The closing section now under construction passes through much more difficult terrain, as may be seen by Fig. 1. However, maximum curvature for this section will be 5 deg. and the steepest grade, except for a straight length where the grade is 8 percent, will be 5 percent. Grading includes one 350,000-cu. yd. cut 1,500 ft. long and of 120 ft. maximum depth.

The earthwork is sufficiently advanced that paving of one section started June 23, by the McGrady Construction Co. Since a non-reinforced pavement is planned, few critical materials will be necessary.

Three concrete bridges required

Three reinforced-concrete girder bridges will be required, as shown in Fig. 2. They will consist of an 85-ft. single span to carry Ivory Ave. over McKnight Road, two single 50-ft. spans to carry the highway over Nelson Run Road, and a continuous structure of three 72-ft. spans to cross above Babcock Blvd., including a traffic interchange.

No decision has been reached as yet whether the 1.3-mi. proposed extension at the north end can be built this year. However, this work would require no major bridges and but little grading. Therefore, this construction could be carried out in a short time.

An interesting feature in the work completed to date has been construction of the center island. With the first work the island was sodded. When this con-

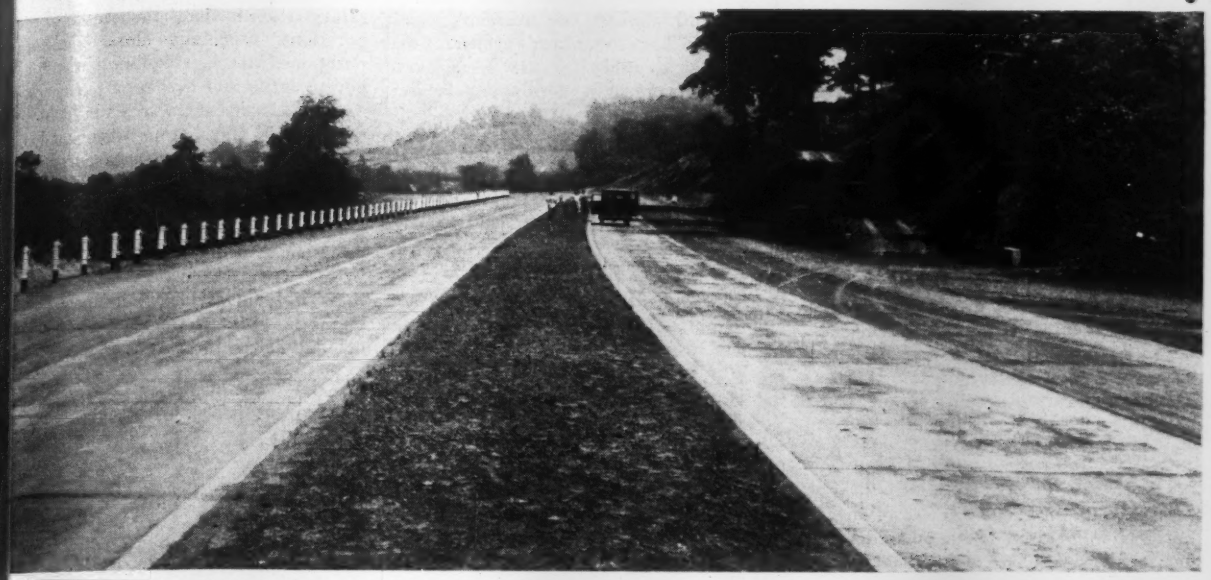


Fig. 3. A sodded center island was constructed with the first section of the road built, and although it proved effective from the safety standpoint, the island was expensive to maintain.

struction proved costly from the maintenance standpoint, a 6-ft. island with white concrete curbs and black concrete in the center was built. But with both these designs, melting snow caused considerable ice along the center mall. As a result the design shown by Fig. 5 will be followed with the new work. This design includes a drainage gutter at the center and is expected to keep the highway free of water. Run-off from one 12-ft. lane on each side of the center line will flow into the island.

Work to cost $2,940,000

McKnight Road is expected to cost $2,940,000, including $656,000 for work on the completed section, $1,900,000 on the 2-mi. closing section, of which $450,000 has already been spent, and $375,000 on the 1.3-mi. extension. Financing, design, construction and maintenance of the major highways, bridges and tunnels (exclusive of state highways) in Allegheny County, are carried out by the county commissioners consisting of John J. Kane, chairman; Geo. Rankin, Jr. and John S. Herron.

Those in direct charge

The design, construction and maintenance of these facilities is the responsibility of the County Department of Works, organized and operating under the authority of the commissioners. The director of the county department of works is Lt. Col. John F. Laboon, now on furlough with the U. S. Army. During the absence of Director Laboon, John B. Sweeney, assistant director, is in charge of the department; Levi Bird Duff, chief engineer; H. S. Dickman, assistant chief engineer in charge of construction; C. K. Harvey, office engineer, and J. C. Weixel, resident engineer.

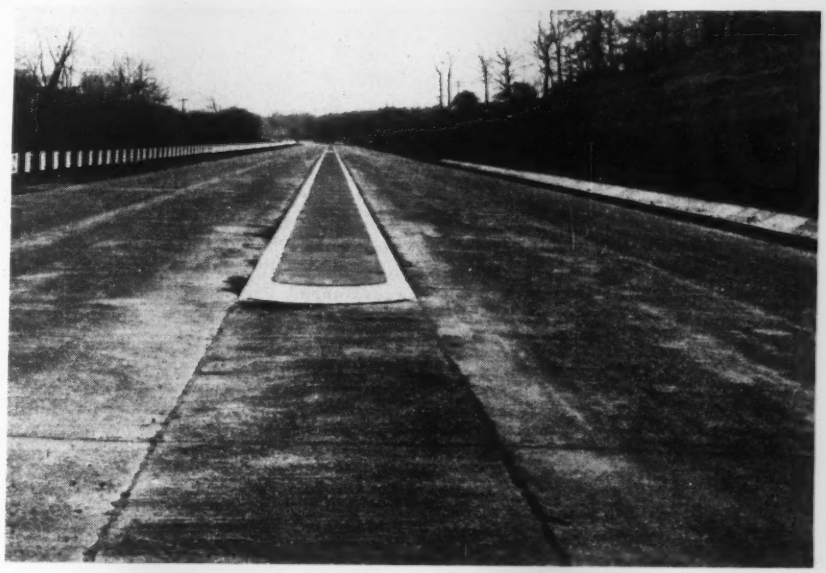


Fig. 4. Another center island design followed was a 6-ft. wide mall of black concrete and with white concrete curbs. This island required little maintenance, but drainage was not entirely satisfactory during heavy snows.

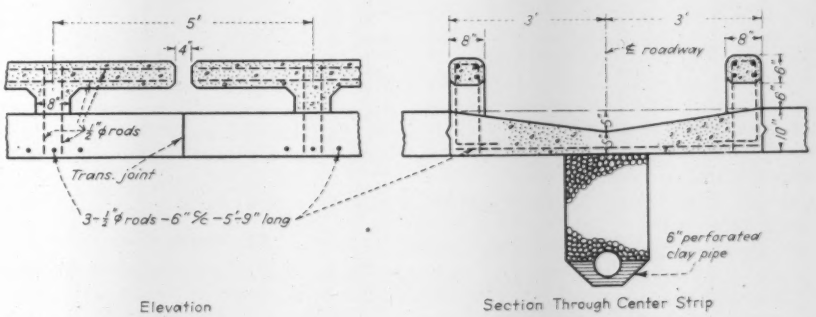


Fig. 5. To improve drainage at the center of the road, a center island of the type above is now planned for new work. Two 12-ft. lanes, one on each side, will drain toward this island.

Associated General contractors meeting

(*Continued from page 2*)

a condition will bring full ruination.

Suggestions have come to the association that the nation is now at least approaching the time when the government should consider awarding contracts to the lowest competitive bidder wherever it is possible to prepare plans and specifications. As a result of Mr. Foreman's report, a motion was passed that the association recommend to awarding agencies the resurn as soon as possible to the system of awarding construction contracts to the lowest responsible bidder after public opening of advertised bids.

Contract renegotiation

Perplexing problems of renegotiating contracts were aired in an open discussion by the assembled association members. Procedures for the renegotiation of construction contracts has not changed materially this year, it was reported, and no changes are anticipated in the present renegotiation rules until the latter part of the year. The rate of closing renegotion proceedings is increasing, but much greater speed will be required before the price adjustment boards will be current. It was pointed out to the members that efforts are continually being made by the War Department to secure the services of high grade men to help expedite the handling of cases. Mr. Coblentz pointed out that renegotiation reports must be clear enough to be easily understood by the renegotiating board to enable it to decide just what is a fair rate of profit.

It was the consensus of the meeting that there would be more satisfaction to contractors if renegotiating boards would explain how the fair rates of profit are established instead of keeping such principles of calculation confidential.

Promotional work needed

Promotion of construction of both private and public projects justifiable on the basis of their needs, from the standpoint of utility and general cultural values was emphasized in a report by Fred I. Rowe, chairman of the market development committee of the association and president of W. L. Johnson Construction Co., Hicksville, O. A concerted effort, said the report, should be made by the construction industry to promote the use of the contract system with its skill, responsibility and integrity to secure the most to the owner for his money. It is of primary importance, continued the report, that fields of activity should be developed both during the war period and following military victory under which contract organizations can best function. Secondly, there should be an encouraagement of the preparation of plans, specifications, acquisition of rights-of-way and methods of financing construction. The committee's report was adopted as a guide for the association and its members in developing future markets.

Labor relations

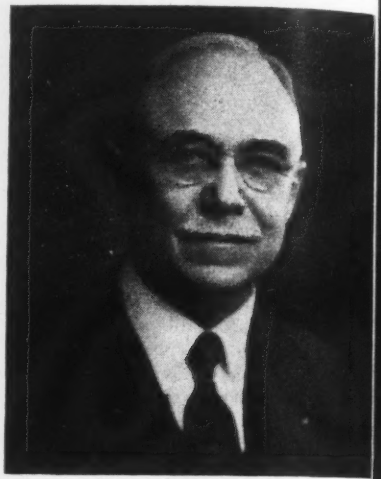
In a report on labor relations submitted by the A. G. C. labor relations committee, strong dissatisfaction was expressed with the present situation regarding wage adjustments in the construction industry both as to procedure and administrative action and policy. Special stress was laid on the fact that the War Labor Board has thus far practically refused to review any action of Wage Adjustment Board. During this phase of the war effort, according to the report, where all else has been sacrificed where necessary to the prompt construction of facilities for training troops, building ships and airplanes, and producing munitions and armament, the governmental contracting agencies have become the dominant force with both the employer and labor. It was the consensus of the committee that the labor policy of the government has now reached a point where it is an issue between organized labor and the people, rather than between organized labor and the employer. The labor relations committee recommended that the governing board and the membership take into consideration the tremendous forces now struggling over labor policy throughout the country, the intrigues, jealousies and jurisdictional problems permeating the government agencies now regulating labor policy at this time, and with that realization, counsel their members not to be stampeded into any ill-advised position by either side of the controversy between the government and organized labor.

Roy MacGregor, chairman of the committee of the secretary's council on post-war planning, advised that the various branches of the association should concentrate their efforts towards encouraging private and public authorities to contract for the maintenance of war plants, buildings, highways, sewers, railroads and similar activities. This will provide work for the construction industry during the transition period following the war.

It should be borne in mind, said McGregor, that for the past three years very little construction of a normal nature has been carried on; so that the backlog of both private and public construction work might be estimated as approximately 45 billion dollars.

Corporate taxes

Taxation as it affects general contracting was discussed at considerable length by William E. Hayes, of Washington, D. C., who pointed out that because of present day tax laws and particularly salary stabilization, thousands of corporations, especially closely held corporations, are surrendering their corporate entity and becoming partnerships. Many general contractors would be better off, said Hays, from a tax standpoint as a partnership than as a corporation. Some 6,000 corporations to date have dissolved in favor of partnership, he said. He warned the association that too little attention is being paid to tax legislation by its members and he advocated that they study more closely proposed legislation in order to make proper recommendations to their Congressmen.



DEAN HARVEY
New President of the A. S. T. M.

40-year A.S.T.M. members honored at Pittsburgh

At the 46th annual meeting of the American Society for Testing Materials last week at Pittsburgh fourteen individuals and four companies received certificates stating they had been members of the society for 40 years. The individuals honored included: Frederick W. Bateman, civil engineer with Parker, Bateman & Chase, Clinton, Mass.; Almon H. Fuller, head of the department of civil engineering, Iowa State College; J. S. Miller, consultant on asphalt technology, Rahway, N. J.; R. P. Miller, consulting engineer, New York City; L. S. Moisseiff, consulting engineer, New York City; H. F. Moore, professor of engineering materials, University of Illinois; H. H. Quimby, consulting engineer, Philadelphia; C. P. Van Gundy (retired), formerly engineer of tests, Baltimore and Ohio R. R., Baltimore, Md.; Hermann von Schrenk, consulting timber engineer, St. Louis; and L. W. Walter, consultant on concrete, Jersey City, N. J.

Two other features of the Pittsburgh meeting were the large registration and the intensive technical program followed.

(*Continued on page 13*)

Inter-American Highway Diary

Editor's Note—This concludes A. N. Carter's day-by-day account of his travels over the Inter-American Highway. His report on the highway construction operations and on how the engineers and contractors met the many problems with which they were faced will be published in the near future.

A. N. Carter, Assistant Editor, Engineering News-Record

June 2—Another step toward home. ith Jimmie Angel, famous South Ameri- explorer as the pilot, I flew along the hway to San Marcus, Honduras, and m there traveled by car to Choluteca, nduras. The air trip permitted stops Estili and Condago, Nicaragua, both ll towns near which large Swinerton-Clure-Vinnell camps are located, for ts with Paul Welton and Charles g, superintendents for SMV, and with k G. Dumas and J. F. Brown, two ner Texas highway engineers and now dent engineer and assistant resident ineer for the U. S. Engineers at Con- o.

The trip along the highway from San rcus to Choluteca, about a two-hour e, was made with Neal Hampton, of V, Charles G. Rishell, formerly with ited Fruit Co. and now project man- r for the Institute of Inter-American airs on a road project in Honduras, Gonzales Luque, superintendent of struction on the latter work.

The stop for the night at Choluteca, a malaria-ridden city of about 15,000, mitted a long talk with Floyd Lilly Paul Sterling, superintendent of con- ction and area superintendent, re- ctively, at Choluteca for SMV.

nce again I am impressed by the dif- lt problem of getting supplies and ipment into the wild, rugged country the Honduranian-Nicaraguan border. m the air, the few tortuous oxcart ls contrast sharply with the excellent mment of the new highway and show its value to the country and the dif- lties to be met in its construction. The ps and bruises that are an ever- ent part of travel on the ground serve to reinforce these views.

espite the lack of good access roads, cult supply lines, and the many other blems, the Swinerton organization is ing good progress.

ne 3—With Wm. Lowitz, general rintendent for the Frederick Snare p. in Honduras and El Salvador, and A. Terzain, field engineer for PRA e same two countries, I inspected the ges being built over the Guacirope r, one of the largest streams in Hon- s, and the Guascoran River, which forms part of the boundary between Honduras and El Salvador. Local labor and materials are used on both of these projects, which has resulted in some interesting construction.

Fortunately, Lowitz was driving to San Salvador, where we arrived in time for a long talk with W. C. Palmer, resident engineer in El Salvador for PRA, and John K. Flick, for many years an engineer with PRA in Central America and now loaned to the Export-Import Bank.

June 4—A bit of diversion from road construction, as I accompanied Col. H. W. Van Hovenberg and Capt. C. M. Ledbetter to San Miguel, El Salvador, to visit some malaria-control work and to inspect a new sewage treatment plant for that city. Both men are engineers in the Sanitary Corps of the U. S. Army and they have been loaned to Servicio Cooperativo Inter-americano de Salud Publica (Operating organization of the Office of Inter-American Affairs in Central America).

June 5—With Captain Ledbetter I traveled by car from San Salvador to the Guatamalan border, for the entire distance over a splendid road paved with asphaltic macadam. At the Guatamalan border I was met by D. Manning, Jr., and Charles Dresser of the U. S. Engineers, and Col. C. E. K. Bickford of the Guatemalan Army and chief of construction for his country on the Inter-American Highway work.

Our trip from the border to Guatemala City was over much new construction and in places hard riding. The danger on this highway construction from tropical storms was well illustrated by the fact that when we reached a difficult mountainous section of the work we found that two workmen had been killed in a landslide caused by a sudden storm a few hours previous.

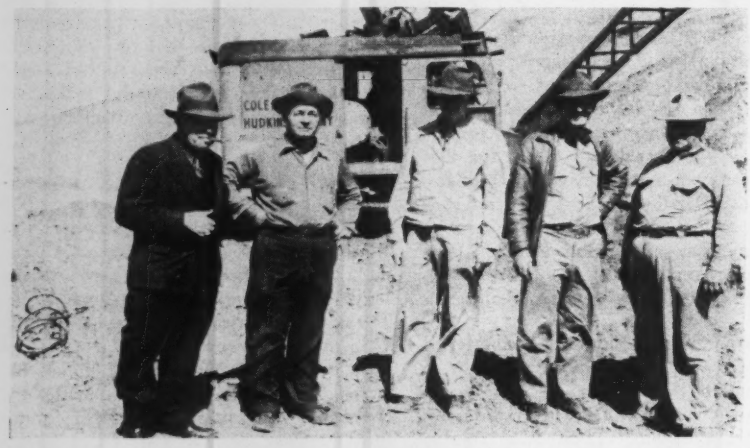
June 6-7—Sunday was spent in part with Major Maurice C. Tobin, area engineer in Guatemala for the U. S. Engineers, as was Monday, but much of the latter day was consumed in registering at the Police Department and getting my passport in order for departure from the country. But for the help of the U. S. Engineers, who knew the ropes, I might have spent days working out travel accommodations and taking care of passport matters.

June 8—Back in the U. S. A., little the worse for wear and tear from the 11,000 miles I have traveled since leaving New York six weeks ago. I got up in Guatemala City at five o'clock, expecting to leave soon afterward for Brownsville, Texas, in an aircraft transport of the U. S. Army. However, departure was not until nearly noon and without lunch. Between Guatemala and Brownsville the only stop was a brief one in Mexico and the flight was made in good time. We arrived at Brownsville about six o'clock.

Route of the Inter-American Highway, which is the strategic link of the Pan-American highway system through Central America. It is 1,530 miles in length.

MEN AT WORK

Engineers of Westinghouse Elec. & Mfg. Co., get their heads together to discuss plans for new construction at the Merchant Marine Division Offices, Lester, Pa. Left to right: E. L. SPRAY, merchant marine division manager, GEORGE PARKMAN, director of building construction and maintenance, H. A. COHN, steam superintendent, headquarters construction department, and H. L. HEILMAN, chief architect, headquarters construction department.



On the Bluff Creek Water Supply Project at Oklahoma City, EARL W. BAKER, left, contractor of Oklahoma City is doing part of the construction; W. C. COLE, of Cole, Carley & Hudkins of Omaha, is supervising equipment on a yardage rental basis; DICK JONES of the Moretrench Corp. helps keep the excavation dry; S. K. McLELLAND represents Oklahoma City; and GLEN PERRY is grading foreman.

Altogether the three engineers above have served 85 years with the city of Columbus, Ohio. They are, left to right: W. T. STARR, engineer in charge of street construction; P. W. MAETZEL, city engineer since 1933, and ORRIS BONNEY, deputy city engineer. Mr. Maetzel in his 38 years of service has seen Columbus double in population.

WALTER C. BEARCE, erection foreman of Pi... Bridge Co., has just completed, at Lakehurst, N... erection of a huge timber blimp hangar using eq... ment and methods common to steel erection.

Housing in the Beaumont, Orange, Port Arthur ... of Texas is supervised by GEO. MASTERSON, ... assistant project manager, and FRANK R. DUNL... area project manager, for the Federal Public H... ing Authority. Eight emergency housing project... the area will cost $15,000,000.

Canadians make plans for postwar construction

The National Construction Council of ada has decided, subject to the con- ence of its constituent organizations, it will proceed immediately with the aration of a comprehensive plan for loyment of the construction industry e-establishing a peace-time economy on as the war is over. It will advo- (1) an adequate rural and urban ing scheme; (2) revival of the cil's regional committees that were ed in 1933 to deal with the depres- emergency, to study and report on improvements that can be under- in the postwar period, and (3) possibility of sending members of xecutive committee and representa- of the constituent organizations Canada to discuss plans with re- l and local committees.

e council is made up of representa- of the Engineering Institute of da, the Royal Architectural Insti- of Canada, the Canadian Construc- Association, the Canadian Manufac- Association, the Trades and r Congress of Canada, the Cana- Lumbermen's Association, and cor- nding trade associations for the bing, paint manufacturing, painting decorating, brick manufacturers, ural clay tile manufacturers, and ry and metal trades. Thus, the il is representative of all phases of ruction in Canada.

• • •

ost of living bonuses r construction workers

National War Labor Board of a, following representations made by the Canadian Construction As- on, has issued an order that all l workers in the construction in- in Canada not now receiving a -living bonus are to receive such s, as from June 1, of $2.25 per for those whose wages are in ex- $25 per week, and of 9 percent ir weekly wages for all other s. It is estimated that this order benefit about 12,000 workers hout Canada, and it will have the of making the incidence of the -living bonus uniform throughout anadian construction industry any local regulations.

y increases have just been ap- by the City Council at Durham, for engineers and other workers city water department. Increases a year have been approved for perintendent of the department, t superintendents, office mana- wage plant operators, filtration perators, pumping station opera- nd chemists. Others receiving in- creases include the construction and maintenance foreman, meter readers and utility men. A flat increase of $10 a month has been voted office clerks and stenographers.

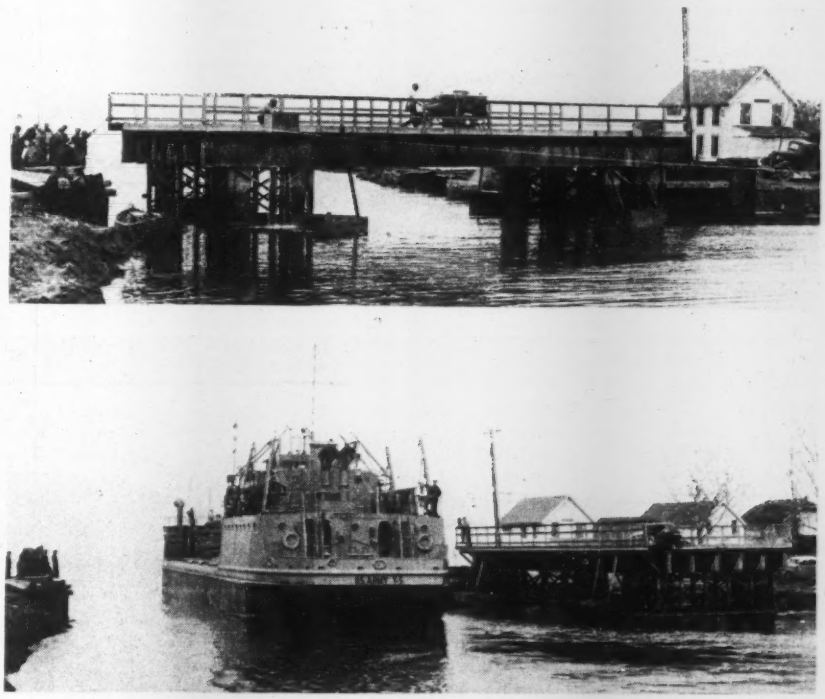
• • •

Faults in welding to be detected by X-ray

Because of the fact that faulty welding has been alleged as the cause of failures in some recently constructed Liberty ships, special interest attaches to an X-ray method for testing new welds, which have just been patented by William A. Bruce, of Tulsa, Okla.

A narrow beam of X-rays, all of the same length, and sharpened by passing through slots in two screens, is shot at an angle against the welded seam. Part of the rays are reflected, part pass on through the metal. Two ionization chambers, which detect the reflected rays electrically, are set up at angles at which they will catch the major reflections. Their records tell metallurgists the state of the weld, particularly how soon it is proper to apply cooling fluid. Back of the weld a photographic plate is placed, to catch the rays coming through and make an immediate permanent record of flaws, blow-holes, or any other structural faults.

The inventor has assigned his patent to the Standard Oil Development Co.



Novel ponton bridge gives access to shipyard

An unusual, ponton-mounted swing bridge gives the Odenbach Shipyard, on a small inland lake, access to Lake Ontario. The bridge is 65 ft. long, 22 ft. wide, and will accommodate H-15 loading for one lane of traffic each way. The bridge is surfaced with open mesh steel decking 2½ in. deep, estimated to save 50 tons in weight over a concrete deck.

The bridge has six lines of shallow girders, ends of which rest on concrete sills at the abutment when the bridge is in closed position. When the bridge is to be raised, a portable air compressor forces the water from four pontons 25 x 10 x 6-ft. deep at each end of the bridge and from four stabilizing outriggers 5 x 6 x 7-ft. deep outside the structure near each end.

The ponton structure is set back under the deck girders so that after the span is raised there is ample clearance for swinging the bridge to one side, which is done by hand by two men pulling on a fibre rope. About 20 minutes is required for pumping out of the ponton and moving out the span, but this is not considered serious as only new vessels moving from the shipyard use the channel and road traffic is comparatively light.

Boats using the channel are medium-sized tankers for the Transportation Corps, Army Services Forces, which are 180 ft. long, 30-ft. beam, and a 13-ft. molded depth. Two diesel engines propel the twin-screw craft which is designed for ocean travel with a load of 288,000 gal. of petroleum product. These tankers are 80 percent welded and are built in six sections —three cargo tank sections, a bow section, an engine-room section, and an after peak section, and are assembled on the ways complete in only eleven working days.

The novel bridge structure was designed by engineers of the Odenbach Shipbuilding Co., and Irving Subway Grating Co.

Large housing requirements indicated for southeastern war workers

More than 56,000 dwelling units of all types will be needed in next 12 months, NHA representative says

More than 56,000 dwelling units of all types will be needed to house essential in-migrant war workers during the next 12 months in the seven-state Southeastern area, it is estimated by Robert K. Creighton, regional representative of the National Housing Agency. This figure, he says, represents the estimated war housing to be programmed by the NHA in the ensuing year in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

Estimates, Creighton asserted, are based on an anticipated labor immigration in the seven states during the next year of approximately 88,345—by far the greatest migration of workers in the history of this area. Mr. Creighton said that these figures are subject to correction and change by the War Manpower Commission, on whose figures the NHA relies for actual programming of housing.

Estimated housing needs by states during this 12-month period are: Florida, 14,066 units; Georgia, 12,575 units; Alabama, 11,468 units; South Carolina, 5,223 units; Mississippi, 3,633 units; North Carolina, 3,613 units, and Tennessee, 2,756 units. In the seven-state region for the period involved, public new construction, according to present estimates, will amount to 28,750 units. New private construction will account for 12,220 units. Housing units to be provided through public conversion amount to 7,450, and through private conversion, 3,160. Dormitory units will amount to 4,900.

Housing data from a number of specific sections of the southeastern area follows:

Alabama: The National Housing Authority has announced the approval of a housing project for Gadsden, Ala., calling for the construction of 450 family units, 300 for white and 150 for colored tenants.

Virginia: In the Williamsburg and Yorktown areas, FPHA projects to cost approximately $5,000,000 are to be constructed.

It is reported that housing conditions have become congested in Williamsburg, and that 1,112 family units will be constructed as housing projects in that area. Numerous new projects to be located between Williamsburg and Camp Peary, training center for Seabees, are needed to house the influx of war workers to the area.

Georgia: At Brunswick, 300 more housing units are ready for occupancy, having been delivered by the local housing authority. There now remain to be completed in this housing project 150 units which it is announced will be delivered to the housing authority at the rate of 50 per week until the project is completed.

When the remaining brick dwellings are finished, the first housing program for Brunswick will have been completed. It will bring the total number of units to 4,604.

Added to the 4,604 included in the first projects, is an additional 1,760, recently authorized, for which the site has been selected and for which a contract will be awarded soon.

• • •

Military cars pay toll on New York City bridges

The Commissioners of the Port of New York Authority have decided to assess tolls against military vehicles using Port Authority crossings. The step was made necessary by curtailed revenues resulting from the long extended gasoline and rubber shortage.

A method of billing will be worked out permitting military traffic to pass through toll lanes without interruption as has already been done by other public bridge agencies.

Existing Army regulations authorize the payment of tolls by military vehicles on ferries, toll bridges and for all forms of rail, air and other transportation. Military tolls are charged by many publicly owned bridges in New York State including the Lake Champlain, Rouses Point, Thousand Islands and Peace bridges. Fourteen ferries in the Port of New York district, which compete with the interstate bridges and tunnels charge tolls to military vehicles.

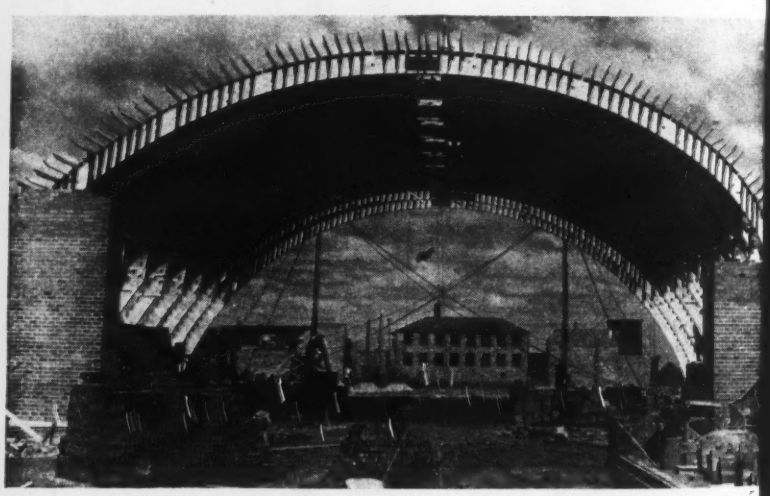
• • •

WPA goes out of business and turns in $130,000,000

The Work Projects Administration turned back $130,000,000 to the Treasury of the United States on June 30 as it went out of existence.

Only a small "liquidation staff" of the relief agency remained at the end, getting records and accounts into shape for a final report on its operations.

The records will show, officials say, that WPA spent about $10,500,000,000 and employed 8,500,000 persons since its inception in 1935.



Timber arches used for naval training station

To save steel, laminated timber arches of 110-ft. span and 7½ x 27½-in. cross section are used for a drill hall at the Ottumwa, Iowa, naval training station. The hall, which is to be used for athletic events, is 325 ft. long and has a clear story height of 41 ft. 8 in.

In all, 20 arches supported on concrete footings are required. They are erected in two sections by gin poles. In addition at each end of the hall timber Warren trusses are used to support the accordion doors. A vertical opening of 25 ft. is provided.

To construct the walls of the lean-tos, which make the overall width 143 ft., hollow tile is used. This design not only saves lumber, it provides a vermin-proof building.

Construction is by Sollitt-Lancaser-W[illegible] which is a combination of the George Sollitt Construction Co., Chicago; Lancaster Co., Omaha, and White Consolidated, Chicago. Crumlish of the Sollitt firm is in general charge. The architect-engineering work is by Russell B. Moore Co., Indianapolis, Ind. Lt. Comdr. Hugh C. Wilson is the officer in charge of construction for the Bureau of Yards and Docks, Navy Department.

MEN AND JOBS

Appointments just made by the board of aldermen at Winston-Salem, N. C., include: **R. A. Thomas,** public works commissioner, and **G. Clayton Hill,** building inspector.

George H. Barbour has been named minister of the Department of Public Works and Highways for the province of Prince Edward Island.

Lt. Col. Reuben E. Cole has been appointed district engineer for the U. S. Engineer Corps at Albuquerque, N. M.

F. E. Giesen, supervising engineer for the Defense Plant Corporation on construction of the aluminum plant near Bauxite, Ark., and the aluminum plant near Hot Springs, Ark., has been commissioned a lieutenant, senior grade, in the Civil Engineer Corps of the Naval Reserves. He has been ordered to report at Camp Peary Magruder, Williamsburg, Va.

Frederic Alport is at present consulting engineer to the director of the naval service in the Department of National Defense at Ottawa, Ont. Until recently Mr. Alport was at Halifax, N. S., where, since 1938, he had been employed with the Department of Public Works of Canada as senior assistant engineer.

John Berry, of Tama, Ia., Tama county engineer, has enlisted in the Seabees. **Assistant County Engineer Ronald Child** is slated as his probable successor.

Ray Spurzem of Kalispell, Mont., has been appointed acting district engineer at Kalispell by the Montana highway commission. He succeeds **M. C. Lockey** who has entered the naval construction service.

Thomas W. Bivens, of Concord, N. C., has been named sanitary engineer for the Lenoir County health department at Kinston, N. C.

Assignment of **Col. Albert H. Burton** as district engineer of Philadelphia, Pa., district has been announced by the U. S. army district engineer office. He replaces **Col. H. B. Vaughn, Jr.,** assigned to duties elsewhere.

C. McCallen, of Jackson, Tenn., West Tennessee division maintenance engineer of the Tennessee highway departmnt, has been promoted to division engineer, and **J. B. Haynes,** Memphis district maintenance engineer, has been appointed to succeed Mr. McCallen.

R. H. Strange, formerly connected with the engineering department of the Republic Steel Corp., Birmingham, Ala., who is stationed in the overseas service, has been promoted to major. He is with the army engineers.

Harold A. Rands, of Portland, Ore., engineer of water flow in streams, is retiring after years of service with the U. S. Army Engineers. He is 72 years of age. He was graduated from Cornell University and built the hydro-electric plant on the Clackamas River in Oregon, studied bridge sites in Alaska for the Alaska Railway Commission, and built the water supply system at Fort Lewis, Wash. He was one of the consulting engineers on the Bonneville dam.

Armand Gagnon has been appointed manager of the town of La Tuque, Que. He has been employed with the Quebec Department of Public Works.

Roy E. Woodward has returned to his position as Pacific County road engineer at South Bend, Wash., after having served three months with the civilian staff of the U. S. Army Engineers at Seattle.

L. R. Chandler, resident engineer for the past four years at Pendleton, Ore., for the Oregon State Highway Department, has been commissioned a lieutenant in the naval reserve and has reported for active duty in Virginia.

R. D. Medley has been promoted from chief draftsman to engineer of road design in the state highway department of Kentucky. He has been employed by the department for 20 years and had been chief draftsman for the last 12 years.

Major Harold B. Gotaas, chief engineer of the health and sanitation division of the Office of Inter-American Affairs, returned to Washington early in May, after a four months' trip through South America. Major Gotaas traveled about 20,000 miles, visiting sanitation projects in seven Latin-American countries. While on the trip he received a promotion from captain to major in the Sanitary Corps.

L. W. Bremser, who has been working on the Black and Veatch cantonment job in Colorado, recently joined the staff of the Illinois division of sanitary engineering and will be assigned as a district engineer. The division has been loaned the services of **M. Getz** by the U. S. Public Health Service. He will be stationed in district 2, Lake County.

Jerald Dysterhouse, U. S. Public Health Service reserve officer, is in charge of malarial control in war areas of Illinois, working in cooperation with the Illinois sanitary division.

Members of the staff to leave most recently for the armed forces, all of whom are first lieutenants in the sanitary engineering corps, include: **C. K. Hendricks, A. A. Thomas** and **D. K. Harmeson,** all stationed at Carlisle Barracks, Carlisle, Pa.; **B. J. Leland** at Jo Robinson, Ark.; **V. L. Walker** in Washington, D. C., awaiting assignment; **John Barnhill,** Fort Dix, N. J.; **John Newell,** Camp Pickett, Va. **Le Verne Hudson** has been placed with the Inter-American Affairs Commission, and is stationed at Bogota, Colombia. Word has recently been received that **J. D. Williams** has arrived in Brazil on a similar mission. **Capt. C. W. Klassen,** who left as chief sanitary engineer in Illinois some time ago, is in Washington, D. C., where he has been assigned as a member of the U. S. Army to the War Manpower Commission to recruit workers for the sanitary corps. He also will work on equalization between the demand of civil agencies and the armed forces for sanitary engineers.

Harold A. Leader, superintendent of construction for the Melbourne Construction Co., Canton, Ohio, has been commissioned a captain in the Army Engineer Corps and has reported to Camp Claiborne, La.

Capt. Allan S. Austin and **Lt. Donald G. Austin** (jg), of the Austin Co., entered active service of the army and navy, respectively, recently. Allan is secretary of the company and has been active in the administration of war projects for the Austin Co. in the Cleveland district. He is in training at Charlottesville, Va. for service in the military government division of the army. Donald has been the Austin Company's resident sales manager at Houston, Tex., for several years and entered the service at Boston and has been assigned to inspection and expediting of naval materials in the naval district office there. Both men are graduates of Yale University and are sons of the late W. J. Austin, president of the national engineering organization.

John Naughton, former WPA administrator for Iowa, has been appointed superintendent and local manager of construction for the Kucharo and Union Construction Co., of Des Moines, on a $1,500,000 defense housing project at Fort Worth, Texas.

Construction Communiques

Engineering News from the Battlefronts

New Guinea—The Papuan Bored Lumber Co. is the name of a New Guinea concern which American army engineers have started with a sawmill made from a wrecked airplane, two abandoned trucks, a worn-out tractor and parts from an unused copper mine.

The company, with the slogan "Operated by Slap Happy Slab Sitters," turns out lumber for an army force bombardment group. Maj. Herbert Imbt of Stroudsburg, Pa., is president. Parts of the sawmill are of Japanese, German, Australian, British and American origin.

South Pacific—When a crew of Seabees hit a hitherto uninhabited island in the Pacific, subsequent developments seem magical. Approximately 1000 Seabees, for example, will be landed in a certain area. Back from the beach some hundred yards tents will spring up quickly. The Seabees' equipment consists of all types of modern labor-saving machinery that make for efficiency and speed. Barracks and administration buildings are erected hastily. Hangars are built. Runways are rolled into shape. A harbor for boats of shallow draft takes form. A machine shop is set up. The men work at top speed for they are racing against time and the plans of the enemy. In a few days' time, runways and seaplane landings are completed. Camouflaged hangars conceal fighting planes. There are gun emplacements and machine gun nests but you can't see them, nor will the enemy—until it is too late.

For Seabees' officers, a college engineering degree or the equivalent is required and the great majority have had engineering, construction, or managerial experience in civilian life. The Seabees are led by officers who know their business. Typical officers include graduates of leading technical universities and colleges from coast to coast; men who have been instructors, civil engineers, construction engineers, subway and tunnel engineers, construction superintendents and contractors on important projects. Officers all receive special indoctrination and training to equip them for the specialized work ahead of them.

Press Assn.

Native workers help engineers build roads in New Guinea

U. S. Army Engineers build roads through New Guinea jungle and swamp. Gangs of New Guinea natives help in the construction of a road along a hillside. This scene is being duplicated in many places in the South Pacific area.

• • •

Trans-Canada highway now open to West Coast

T. B. McQuesten, Ontario Minister of Highways, has announced that the Trans-Canada highway is now open for passenger traffic from coast to coast. The last stretch to be opened, 153 miles from Geraldton to Hearst in northern Ontario, was recently inspected by A. A. Smith, chief engineer of the Ontario Highways Department, who pronounced it open for traffic, but he calls attention to the fact that there are as yet no gasoline service stations on this stretch of road, so that motorists using it must first check up carefully on their gasoline supply.

Heretofore, motorists have had to travel through the United States to go from the eastern to the western provinces.

• • •

Fire underwriters issue revised building code

The Recommended Building Code of the National Board of Fire Underwriters, which serves as a model for building regulations in many cities throughout the country, has been revised to conform to advances in knowledge and experience which have resulted from new methods and materials, and to suggest means of protection required by new hazards, it has been announced by W. E. Mallalieu, general manager of the board.

The code does not attempt, however, to dictate choice of materials, assemblies, or designs, so long as the proper degree of safety and health is attained. One of the principal reasons for this is that new building materials and construction methods are constantly being developed and rigid requirements might retard their use.

An outstanding addition to this 1943 Recommended Building Code is an appendix in which the fire resistance rating, in hours of duration, is given for different forms of construction. This appendix covers walls and partitions, columns, beams, girders, trusses, and floor and roof construction. It was completed after months of study of all available data on tests made in this country and England. These results were analyzed so that the rating given would be on a comparable and equitable basis.

A.S.T.M. honors 40-year members at Pittsburgh

(*Continued from page 6*)

Registration totaled 1,452 and it was the third highest in the society's history, being exceeded only by the registration of 1,553 at Chicago in 1941 and 1,523 at the 1937 meeting in New York. Since membership in the society is now 4,904, the percentage of the members in attendance was unusually high.

A.S.T.M. meetings have always been characterized by the extensive committee work and the limited amount of light entertainment, but the Pittsburgh convention was further intensified by the emphasis placed on a greater war effort. This emphasis resulted in much specification work to permit the manufacturing industries to use new materials and greater substitution of old materials, as required by the war effort. However, of greatest interest to the construction industry were those papers dealing with more efficient use of timber, concrete, lime, and petroleum products, and better test methods for these materials. Abstracts of the papers will be published next week.

Dean Harvey, materials engineer in the engineering laboratories and standards department, Westinghouse Electric and Mfg. Co., East Pittsburgh, Pa., was elected president of the society for the coming year. He succeeds Herbert J. Hall, of Lowell Textile Institute.

Based upon the success of the Pittsburgh convention, the executive committee decided that an annual meeting next year would be of help to the war effort. This convention will be held at Atlantic City, N. J., in June.

• • •

T. E. French, Ohio State, receives Lamme medal

The Lamme Medal, awarded annually for outstanding achievement in engineering education, was presented June 19 by the Society for the Promotion of Engineering Education to Professor Thomas E. French, head of the Department of Engineering Drawing at Ohio State University, Columbus, O.

The presentation was made by D. Henry T. Heald, president of Illinois Institute of Technology and retiring president of the society, at its golden anniversary dinner in Chicago. The award was founded by a bequest of Benjamin G. Lamme, chief engineer of the Westinghouse Electric and Manufacturing Co.

JOBS OF THE WEEK

RUNWAYS, Seattle, Wash.

Minnis & Moody, Johnson, Inc., and Vista Construction & Financing Co., San Bernardino, have been awarded the contract to extend airport runways by Civil Aeronautics Administration, Boeing Field, Seattle, at an estimated cost of $1,400,000.

HOUSING, Florida

Federal Public Housing Authority, Atlanta, Ga., awarded contract for housing, to A. J. Honeycutt, Inc., Birmingham, Ala. Estimated cost is $512,711. M. Leo Elliott, Tampa, is architect.

BUILDINGS, Maine

T. W. Cunningham, Inc., Bangor, Me., has been awarded the contract by U. S. Engineers, Boston, Mass., for buildings, Aroosook County, at an estimated cost of from $500,000 to $1,000,000.

EXPANDING PERSONNEL FACILITIES, San Pedro, Calif.

Bureau of Yards & Docks, Navy Dept., Washington, D. C., awarded contract to James I. Barnes Construction Co., Santa Monica, Calif. Work includes expanding personnel facilities at Roosevelt Base. The contract price was $577,398.

IMPROVEMENTS, Texas

U. S. Engineers, San Antonio, Tex., received lowest bid for constructing improvements, Cameron County, from H. B. Zachry, San Antonio, at $536,000.

IMPROVEMENTS, Pennsylvania

Larkin Co., Inc., Camp Hill, Pa., will construct improvements in McKean Co., at estimated cost of $500,000 to $1,000,000. U. S. Engineers, Pittsburgh, Pa., awarded the contract.

IMPROVEMENTS, New Mexico

Ernest Loyd, Fort Worth, Tex., and Lee Moor Contracting Co., El Paso, Tex., have each been awarded a contract for improvements in Chaves County by the U. S. Engineers, Albuquerque, N. M. Each project is for less than $1,000,000.

IMPROVEMENTS, Brazil

Elmhurst Construction Co., Corona, N. Y., has been awarded a contract for improvements by U. S. Engineers, Miami, Fla. Pan American Airways, New York, N. Y., is in charge of the work.

HOUSING, Pennsylvania

HRH Construction Corp., New York, N. Y., has been awarded a contract for housing by Public Housing Authority, New York, N. Y., at $2,983,000. E. H. Wigham, Philadelphia, Pa. is the architect.

CONSTRUCTION AT AIR FORCE INSTALLATION, South Carolina

U. S. Engineers, Charleston, S. C., awarded a contract for construction at army air force installation, Orangeburg County, to MacDougald Construction Co., Atlanta, Ga. Cost will be in excess of $1,000,000.

CONSTRUCTION AT AIR FORCE INSTALLATION, Kansas

San Ore-Miller Clarkson, Garden City, Kan., will construct work at air force installation, Sedgwick County. Cost in excess of $1,000,000. U. S. Engineers, Kansas City, Mo. awarded the contract.

CONSTRUCTION AT AIR FORCE INSTALLATION, Oregon

U. S. Engineers, Portland, Ore., awarded a contract for constructing an army air force installation, Jefferson County, Ore., to Morrison-Knudsen Co., Inc., and Ford J. Twaits Co., Los Angeles, Calif. The cost will be over $1,000,000.

SUBMARINE DRY DOCKS, Hunters Point, Calif.

Bureau of Yards & Docks, Navy Dept., Washington, D. C., has awarded the contract for the construction of 3 submarine dry docks to Ben C. Gerwick, San Francisco, Calif., $3,684,000.

AIRPORT, El Dorado, Ark.

Palumbo Excavating Co. and Chernus Construction Co., St. Louis, Mo., were awarded a contract for airport construction and improvements at $527,536 when Civil Aeronautics Administration, Fort Worth, opened bids. T. L. James & Co., Ruston, La., were awarded a contract on another schedule at $523,320.

IMPROVEMENTS, Grosse Ile, Mich.

Bureau Yards & Docks, Navy Dept., Wash., D. C., awarded the contract for improvements concrete landing mat, taxiways and extensions to runways at Naval Air Station to Lewis & Frisinger Co., Ypsilanti, Mich. The estimated cost is $695,025.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 15.

OBITUARY

H. Stephen Bridge, 80, president of Amos D. Bridge's Sons, Inc., Hazardville, Conn., road contractors, died June 15, at his home in Hazardville. Mr. Bridge succeeded his father as president of the road building company in 1906.

William C. Cross, 61, civil engineer for the Curtiss Wright Corporation, died June 17, at Louisville, Ky.

Carl King, 63, general superintendent of Wickwire Spencer Steel Co., Palmer, Mass., died there on June 25. He was a member of the technical committee of the Wire Rope Association of America and prominent in iron and steel circles.

Percy A. Cupper, 61, of Salem, Ore., former Oregon State Highway engineer, died at Laramie, Wyo., June 13. Mr. Cupper had been in Washington for three weeks conferring with federal officials on eastern Oregon irrigation matters. He served several years as Oregon State engineer.

Fred Parsons, 95, one of the few colored civil engineers in Canada, died at Amherst, N. S., June 23. As town engineer of Amherst, in 1890 he was Canada's first municipal engineer of the colored race. He laid out a cemetery and a park at Amherst. He also laid out the town of Dalhousie, N. B. He had been engineer and construction head on many contracts for buildings, wharves and bridges in the maritime provinces.

Oscar W. Wagner, 44, an associate engineer in the United States Engineers' Office at Louisville, Ky., died there June 24.

Fred A. Muller, building contractor of Oakland, Calif., died there on June 2. Mr. Muller had built many of Oakland's hotels and public buildings.

Frederick Louis Gagnon, 68, prominent Canadian civil engineer, died in Quebec, Canada, on June 18. Mr. Gagnon was a graduate of McGill University in 1899, and he was successively on the engineering staffs of the Dominion Bridge Company, Canadian Vickers and the National Harbors Board.

Clarence A. Neal, designer and builder of some of the country's largest bridges, died in Houston, Texas, June 29. Mr. Neal's home was in Kansas City, Mo. He operated through his own company, The Union Bridge and Construction Corporation. In recent years this company had its general offices at Houston. He was a graduate of the Massachusetts Institute of Technology.

Mr. Neal received national recognition in engineering circles some time ago when he solved a Texas bayou problem by constructing ten large steel barges in order to complete one of the largest bridges in the country. Instead of having to write-off the barges as a heavy loss, he operated them as a barge line and turned the project into a profitable business venture.

Robert J. Seergel, 53, designer of many Milwaukee bridges and viaducts, and principal structural designer of the city's buildings and bridges department, died June 25. A graduate of the University of Wisconsin school of engineering, he first went to work for the Illinois state bridge department, and became associated with Milwaukee public works 23 years ago.

Russell M. Obert, 41, civil engineer of Columbus, Ohio, died there June 5.

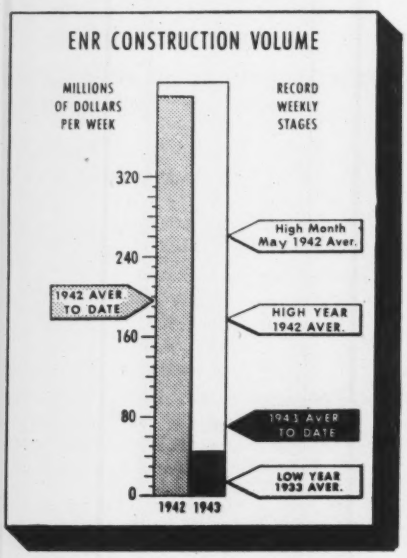
Everett B. Vawter, 82, civil engineer of West Lafayette, Ind., for more than half a century, and president of the West Lafayette Water Works Company, died June 21.

Frank C. Jordan, 66, secretary and assistant treasurer of the Indianapolis Water Co., died suddenly on June 26. Mr. Jordan served his company for almost half a century after having started as an office boy in 1894. President of the American Water Works Association in 1924, he was elected to honorary membership to this association in 1941.

CONTRACTS AND CAPITAL

CIVIL ENGINEERING construction volume in continental U. S. totals $42,002,000 for the short week due to the Fourth of July holiday. This volume, not including the construction by military combat engineers, American contracts outside the country, and shipbuilding, is 90 percent below the near-record high reported for the corresponding 1942 week, and compares with $60,148,000 for the preceding week. Private construction is 62 percent below the week last year, and public work is down 90 percent due to the 67 percent decline in state and municipal construction and the 91 percent decrease in federal volume.

The current week's volume brings 1943 construction to $1,868,402,000, an average of $69,200,000 for each of the 27 weeks. On the weekly average basis, 1943 construction is 65 percent below the $5,524,720,000 for the 28-week period a year ago. Private construction, $230,442,000, is 35 percent lower than last year, and public work, $1,637,960,000, is down 67 percent when adjusted for the difference in the number of weeks.



In the classified construction groups, waterworks is the only class of work to gain over a week ago. All classes of construction are below their respective totals of a year ago.

New capital for construction purposes for the week totals $5,149,000, an increase of 227 percent over the 1942 week.

New construction financing for the 27 weeks of 1943, $2,915,072,000, is 61 percent under the $7,800,618,000 reported for the 28-week period last year.

CONTRACTS

Continental U. S. Only
(Thousands of dollars)

	Week Ending July 9 1942	July 1 1943	July 8 1943
Federal	$385,095	$49,988	$36,141
State & Municipal	8,271	5,297	2,766
Total public	$393,366	$55,285	$38,907
Total private	8,237	4,863	3,095
TOTAL	$401,603	$60,148	$42,002
Cumulative 1943 (27 weeks)			$1,868,402
Cumulative 1942 (28 weeks)			$5,524,720

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1942 28 weeks	1943 27 weeks
NON-FEDERAL	$518,842	$261,234
Corp. Securities	150,959	15,321
State & Mun	157,764	85,780
R.F.C. loans	127,419	9,000
FPHA loans	.....	3,133
R.E.A. loans	.....	20,000
Fed.-Aid Hwy.	82,700	128,000
FEDERAL	$7,281,776	$2,653,838
TOTAL CAPITAL	$7,800,618	$2,915,072

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	July '43	289.92	139.36
Building Cost	July '43	227.89	123.19
Volume	June '43	204.	89.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

Ia., Albia—City Engineer preparing plans WW reservoir. $20,000. Jas. Weatherstone, clk.

Ia., Spencer—75x100 ft. spray pond addn. $15,000.

Kan., Coffeyville—John D. Byers, mayor, water reservoir, incl. survey of Verdigris River channel storage to determine advisability of constructing 3rd dam for city water storage, Black & Veatch, 4706 Broadway, Kansas City, Mo.

Kan., Kansas City—City, c/o F. W. Blake, comr. Streets & Parks, repairing, reconstructing pump. station, Strong Ave. in Argentine Dist., Ohio Ave. at Missouri River, Shawnee, 12th St., Central and Mill Sts., Armourdale Dist. $125,000. B. Orvis, City Hall, acting city engr. CD 4/6—ENR 4/8.

Mont., Great Falls—Reservoir and connecting watermains. $211,000. Black & Veatch, 4706 Broadway, Kansas City, Mo., engrs. CD 5/11—ENR 5/13.

Mont., Shelby—Surveys, WW sys. $100,000. Corwin & Co., Great Falls, engrs.-archts.

†Nevada—U. S. Eng., 1209 8 St., Sacramento, **Calif.,** water **and sewerage sys.,** Spec. 612, **electric sys., Spec. 611, Nye Co.**

†Tex., Amarillo—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., D. C., recalled bids to have been opened July 20 drilling deep well, pump, and pumphouse, Project 2098. CD 6/29—ENR 7/1.

†Tex., Kingsville—City, c/o Mayor, WW imprvs., Tex. 41-515. $39,270. **FWA.** Perulfoy & Patterson, Box 1321, engrs. CD 11/5—ENR 11/12.

Ont., Fonthill—C. A. Gibson, municipality clk., exten. watermains. $17,000.

Ont., Guelph—New watermains. $56,800. H. S. Nicklin, City Hall, engr.

Que., Verdun — Watermains exten. Lloyd George and Foch Aves. $25,000. H. Hadley, City Hall, engr.

BIDS ASKED

Bids Asked July 14

†La., New Orleans—Sewerage & Water Bd., A. G. Moffat, secy., A. B. Wood, genl. supt., 52,200 lin. ft. 12 and 16 in. c.i. mains in Bartholomew St., Florida Ave., a Dock Board Roadway, old Gentilly Rd. and Hy. U.S. 90, also booster pump. sta., Contr. 230-W. Est. $350,000-$400,000. **FWA.** Plans deposit $10. CD 2/17—ENR 2/25.

Bids Asked

Ont., Belleville—J. W. Homes, municipality clk., reservoir. $36,000. CD 5/18—ENR 5/27.

Que., Lauzon—L. Bourassa, secy. Lauzon Twp., filtration plant. $175,000. Z. Langlais, 105 Mountain Hill, Quebec City, engr. CD 5/4—ENR 5/6.

LOW BIDDERS

Calif., Los Angeles—Dpt. Water & Power, 207 S. Broadway, June 28, 13,800 lin. ft. 42 and 66 in. I. D. rein.-con. river supply conduit, Spec. 8811, from United Concrete Pipe Co., 1347 W. 208 St. **$349,335,** H. A. Van Norman, 207 S. Broadway, Zone 12, engr.

CONTRACTS AWARDED

†Connecticut — U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., filter center, Contr. 699-Eng-2400, New Haven Co., to Dwight Bldg. Co., 67 Church St., New Haven, under **$50,000.**

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville Zone 2, water distr. lines, sewer pipe, gate valves, etc., Contr. 436-Eng-10218. Hillsborough Co., to Owens Constr. Co., 4011 1 Ave. N., Birmingham, Ala., **$50,000-$100,000.**

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, sprinkler sys., Neg-Jax-43-1121, Duval Co., to Moore Pipe & Sprinkler Co., 1130 W. State St., Jacksonville, under **$50,000. Awarded 6/23.**

Ore., Pendleton—C. L. Lieuallen, mayor, City Hall, pumphouse, deep well pump installation, to F. P. Sargent, Pendleton, **$48,000.** Awarded 6/28.

R. I., Scituate—Town of Scituate, Water Supply Bd., 161 Fountain St., Providence, water supply, incl. grading, turfing, etc., at reservoir, to Campanella & Cardi Constr. Co., 86 Weybosset St., Providence, **$23,500.**

†Tennessee—U. S. Eng., Tullahoma, water facilities, Coffee Co to Rule & Murphy Memorial Apartments, Nashville, under **$100,000.** Bids 6/26. CD 6/22.

Location of ENR Correspondents.

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily
A-E-M	Architect—Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Latin America
Bridges	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Excent awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

†Texas—U. S. Eng., Fort Sam Houston, pump. station for WW pump. unit, Bexar Co., to G. W. Mitchell, 612 Builders Exch. Bldg., San Antonio, under **$50,000.**

Tex., Houston—J. N. Edy, city mgr., drilling developing new water supply well, to Layne-Texas Co., 6931 Harrisburg Blvd., approx. **$30,000.** CD 5/26—ENR 6/30.

†Va., Accotink—Bd. Supervs. Fairfax Co. Bd., addnl. water and sewerage facilities, concrete sewage pump. sta., VA 44-218, to C. H. Lawson, Williamsburg, **$36,133. FWA.** G. Hubbard Massey, Fairfax, consult. engr.

†Va., Quantico—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., completion underground water distr. sys. and completion gasoline storage tanks at Marine Barracks and Marine Corps. Air Sta., NOY 6653, to Harwood-Nebel Constr. Co., Inc., 1520 K St. N.W., Wash., D. C., **$126,000.**

Man., Gimli—Dpt. Natl. Defense (Air), Ottawa, Ont., constructing, installing water services at S. F. T. School, to Macaw & Macdonald, 208 Scott Bldg., Winnipeg, **$26,000.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†Conn., Southington—Southington Boro. exten., imprv. sewage disposal sys., installing 940 ft. V.S. and 300 ft. 6 in. sewer mains, 2 settling tanks, sledge beds, chlorinator and chlorinator house with appurtenant work. $20,740. **FWA.** CD 4/15—ENR 4/22.

★**Neb., Omaha**—H. Trustin, city comr. and city engr., storm sewers in flood area at East Omaha, replacement open ditches with sewer tunnels. $3,000,000.

†Tex., Nederland—M. L. Bronough, city secy., sewer facilities, Tex. 41-593. $105,306. **FWA.** Chas. P. Smith, Bancroft Bldg., Orange, engr. CD 3/4—ENR 3/11.

N. S., Halifax—Municipality, exten. the Chain Rock master sewer outlet further into the West Arm, $50,000. R. M. McKinnon, City Hall, engr.

N. S., Halifax—Sewage chlorination, R. M. McKinnon, City Hall, engr.

Ont., Amberstburg—Malden Twp., H. Gibb, clk., Amberstburg, drainage, imprvs. $25,000. J. J. Newman, Bartlett Bldg., Windsor, engr.

Ont., Chatham—Aldborough Twp., drainage imprvs. $30,000. G. A. McCubbin, County Bldg., engr.

Ont., Chatham—Dawn Twp., drainage imprvs. $30,000. G. A. McCubbin, County Bldg., engr.

Ont., Highgate—Howard Twp., drainage imprvs. $25,000. J. M. McGregor, Highgate, engr.

Que., Deschambault—Sewerage sys.

BIDS ASKED

Bids Asked July 12

N. Y., Brooklyn—President Brooklyn Boro. Boro Hall, repairing or reconstructing private sewers or plumbers drains and connections thereto running through various private premises, located within blocks bounded by Jaffray St., Shore Blvd., Norfolk St. and Oriental Blvd.

Bids Asked July 14

†Va., Newport News—At office Federal Works Agency, 601 State Planters Bank Bldg., Richmond, Zone 19, 1,700 ft. 15 in. concrete or vitr. clay gravity outfall sewer parallel to 58 St. from Virginia to Jefferson Aves., Docket Va. 44-264.

Bids Asked July 19

†Pa., Corry—At office City Engineer, installing sanitary sewer lines. $5,000 **FWA** gr. Havens & Emerson, Leader Bldg., Cleveland, O., engrs.

Bids Asked About July 15

†Miss., Biloxi—City, sewerage sys. addn., Div. D-2, 2 mi. 8 to 15-in. sanitary sewers, 3,700 ft. 8 in. c.i. force main, pavement and sidewalk replacement, 1 lift station, Docket Miss. 22-110. **FWA.** Bradford-Collins-Dacey & Collins, Fayoard Bldg., Biloxi, and A. A. Brensley, Kankakee, Ill., assoc. engrs.

Bids Asked About July 28

O., Massillon—Sanitary sewer, Ft. Pitt Bridge Co. area. $100,000.

LOW BIDDERS

Calif., San Francisco—Dpt. P. Wks., City Hall, June 30, concrete storm drain replacement, Glen Park, from R. Flatland, 1115 Clement St., **$27,867.** Est. **$33,400.** CD 6/9.

†La., De Ridder—City, June 21, municipal sewer and water sys., addns., extens. La. 16-102, from Koller Const. Co., Trades Natl. Bank Bldg., Oklahoma City, Okla., **$68,348. FWA.** CD 6/15—ENR 6/10.

Md., Baltimore—City, c/o Bd. Awards, City Hall, June 30, Contr. 359, sewers, etc., from J. Matricciani, 229 S. Exeter St., **$47,047.** G. E. Finck, 312 Municipal Bldg., engr. CD 6/23.

CONTRACTS AWARDED

†Colorado—U. S. Eng., 909 17 St., Denver, incinerator, utilities, water service line, electric distr., etc., Contr. 1728-Eng-342, Denver Co., to Carlson Constr. Co., 4150 Elati St., Denver, under **$50,000.**

Calif., Salinas—Intercepting outfall sewer, to Anderson-Dougherty-Hargis Co., 225 Main St., **$84,074.** Bids 6/24, awarded 6/24. CD 6/15.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, sewage plant and sewage station, Neg-Jax-43-1046, Pinellas Co., to

SEWERS, etc. (Contracts awarded, Cont'd.)

Edward S. Moore & Son, St. Petersburg, under **$500,000.** Awarded 6/22.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., sanitary sewage sys. exten., No. 43-267, Hampden Co., to G. E. Duteau, 90 Cloran St., Springfield. Est. under **$50,000.** CD 6/22.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, sewer outfalls, No. 982-43-246, New Hanover Co., to J. D. Orrell Constr. Co., Wilmington, under **$50,000.** Bids 6/22.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., off-site storm sewer, Pa. 36281, to Pacifico Ventresca, 1450 Grange Ave., Phila., **$28,750.** Bids 5/14. CD 5/7—ENR 4/29.

†Texas—U. S. Eng., 231 W. Main St., Denison, drainage facilities, Jackson Co., to O. J. Parrott, 403 Haskell St., Dallas, **$50,000-$100,000.**

Ont., St. Catharines—Grantham Twp., Court House, sewerage sys., Orchard Park subdivision, to Keystone Const. Co. Ltd., 732 Langlois St., Windsor, **$55,173.** D. G. Ure, twp. engr.

Ont., St. Catherines—Grantham Twp., 148 King St., sewer, addnl. dredging outlet into old Welland Canal, to Ontario Constr. Co. Ltd., P. O. Box 36, **$57,291.**

Ont., St. Thomas—Southwald Twp., J. S. B. Annet, clk., drainage sys., to W. F. Deitrich, 124½ Central Ave., London. Est. **$25,000.** F. A. Bell, County Bldg., engr.

Ont., Sault Ste. Marie—Municipality, c/o T. B. Hearne, clk., sewer 7 streets, day labor, **$25,000.** E. E. Smith, City Hall, engr.

BRIDGES

PROPOSED WORK

Missouri—State Hy. Comn., Jefferson City, three 60 ft. steel plant girder spans, one 55 ft. I-beam span approach to bridge over Missouri River, Jackson Co., over $25,000; one 120, one 80, one 75, one 60 ft. steel truss spans and five 40 ft. I-beam spans over South Creek, Montgomery Co. Over $25,000.

Ont., Clinton—Goderich Twp., c/o R. G. Thompson, R. R. 2, bridge replacements. $50,000.

BIDS ASKED

Bids Asked July 15

Que., St. Alexander de Kamouraska—L. Parent, municipality clk., three 40 ft. span rein.-con. bridge, approaches over River du Loup, Dpt. P. Wks., Quebec City, engr.

Bids Asked July 16

Mass., Waltham—Purchasing Agent P. Wks. Dpt., stone faced bridge over Charles River at Moody St., $130,000. Plans deposit $5. J. R. Worcester & Co., 79 Milk St., Boston, engrs. CD 5/11—ENR 5/13.

Bids Asked July 21

California—State Div. Hys., P. Wks. Bldg., Sacramento, 2 bridges over Branch and Salisbury Canyons, 24 mi. west of Maricopa, Santa Barba Co. V-SB-57-D. G. T. McCoy, P. Wks. Bldg., Sacramento, state hy. engr.

Bids Asked August 2

New Jersey—State Hy. Dpt., S. Miller, Jr., comr., Trenton, deck and balustrade Oak Street overpass, Routes 4 and 35, Sayreville Boro, Middlesex Co. Plans deposit $10, adv. ENR 8/15.

LOW BIDDERS

West Virginia—State Rd. Comn., Charleston, June 1, Littlepage Bridge 1611, Kanawha Co., from Monty Brothers, Charleston. **$59,800.** CD 5/24—ENR 5/27.

CONTRACTS AWARDED

Georgia—State Hy. Dpt., Atlanta, overhead bridge and surface treated approaches for grade separation between State Route 3 and new access road, Cobb Co., to W. L. Florence, Powder Springs, **$46,683.** Bids 6/25. CD 6/16.

Ore., St. Helens—Columbia Co., Judge R. Tarbell, County Courthouse, reconstructing bridge over Bradwood Slough, incl. lowering bridge floor, own forces. **$25,000.**

New Brunswick—Province of New Brunswick, Fredericton, rein.-con. rigid frame span bridge over Bains Brook replacing wooden structure, in St. Martins, to A. Williamson, West St. John, Dpt. P. Wks., Fredericton, engr.

New Brunswick—Province of New Brunswick, Fredericton, rein.-con. rigid frame span bridge over Napan River, replacing old King post truss spans, in Chatham, to M. L. Fletcher, Barker's Point. Dpt. P. Wks., Fredericton, engr.

Ont., Ottawa—Canadian Natl. Rys., B. Wheelwright, ch. engr., (Central Region), Union Station, Toronto, rein.-con. bridge over Union Station tracks, to McLaughlin Bros., Ltd., 120 Scott St., approx. **$50,000.**

Que., St. Clement—C. Gauvin, municipality clk., rein.-con. bridge, to J. P. Normand, L'Islet. O. Desjardins, Pub. Wks. Dpt., Quebec City, engr.

Que., St. Ephrem—J. Roy, municipality clk., rein.-con. bridge over Le Bras River, to J. Houle, 7 Notre Dam St., St. Victor de Tringe. O. Desjardins, Pub. Wks. Dpt., Quebec City, engr.

STREETS AND ROADS

BIDS ASKED

Bids Asked July 13

West Virginia—State Road Comn., D. McClaugherty, secy., Charleston, asphaltic concrete surfacing 2.5 mi. Huntington-Guyan Country Club Rd., US Route 60 SP 187-A, Cabell Co.; surface treatment 10.64 mi. Calhoun Co. line-Ivydale Rd., SP 3422 and 3509 and 10.93 mi. Bickmore-Nicholas Co. line Rd., SP 3037 C and D, Clay Co.; 12 mi. Gilmer Co. line-Napier Rd., Route 60, SP 3382, 3394-A and 229 A and B, Braxton Co.; 7.92 mi. Jct. W. Va. 27 to Ohio Co. line Rd., State Route 88, SP 3699 3720 and 3765 and 2.8 mi. Bethany to Penn. State line Rd., Route 67, SP 3764, Brooke Co.; 5.95 mi. Gauley Bridge-Belva Rd., Route 19, SP 3358 A and B, 1.7 mi. Belva-Nicholas Co. line Rd., Route 16, SP 3446, both Fayette Co.; 2.63 mi. Clay Co. line-Fayette Co. line Rd., Route 16, Nicholas Co.; 9.56 mi. Jct. W. Va. 18-Ritchie Co. line Rd., State Route 47, SP 3364-C and 6.83 mi. Troy-Doddridge Co. line Rd., State Routes 47 and 18, SP 3364B and 3441, Gilmer Co.; 7.4 mi. Maysville-Sheer Rd., Route 42, SP 3215-A and 10.03 mi. Petersburg-Pendleton Co. line Rd. Route 220, SP 70 and 3015, Grant Co.; 8.61 mi. US 50-Hardy Co. line Rd. Route 250, SP 3012, 10.6 mi. Romney-Mineral Co. line Rd., Route 28, SP 164 A and B, both Hampshire Co.; 2.3 mi. State Route 10 to Widemouth Rd. Secondary Route 10/2, State Secondary Proj. 5468; 4 mi. Glatto Lamar Rd., Secondary Route 11, State Secondary Proj. 5091; 6.89 mi. Athens Summers Co. line Rd., State Route 20, SP 3450, all foregoing Mercer Co.; 6.06 mi. Williamson-Nolas Rd., Route 52, SP 3303 A, B and 299-A, 8.24 mi. Naugatuck-Belo Rd., State Route 65, SP 2254 and 2254B, both Mingo Co.; 7.5 mi. Berwind-Virginia State line Rd., Secondary Routes 9 and 16, State Secondary Proj. 5461; 4.77 mi. Welch-Wyoming Co. line Rd., State Route 16, SP 3437, both McDowell Co.; 11.6 mi. Kanawha Co. line-Winfield Rd., State Route 17, SP 3420 Pt., 3350, 3299 and 206B, Putnam Co.; 5.81 mi. Raleigh-Shady Springs Rd., US Routes 19 and 21, SP 173-D; 4.21 mi. Midway School-Mercer Co. line Rd., US Routes 19 and 21; 16.67 mi. Beckley-Wyoming Co. line Rd., State Route 16, SP 2022, 3239, 3390 A and B and 3133 all foregoing Raleigh Co.; 16.68 mi. Canfield-Top Rich Mountain Rd., US Route 33, SP 201 A B and 3443; 4.75 mi. Ellamore-Pumpkintown Rd., US Route 33, SP 198-B; 5.13 mi. Harmon-Red Creek Rd., State Route 32, SP 212-A, all foregoing Randolph Co.; 7.44 mi. Smithville-Burnt House Rd., State Route 47, SP 3376; 12.8 mi. Pennsboro-Pullman, Berea Secondary Rd. 7, State Secondary Proj. 5350, both Ritchie Co.; penetration macadam and shoulders 4.56 mi. Shady Springs-Midway School Rd., US Routes 19 and 21, SP 173-E, Raleigh Co.

Bids Asked July 16

Minnesota—State Hy. Dpt., St. Paul, imprv. S. P. 1803-04 (TH 18-18) and S. P. 4814-16 (TH 169-18) 13,182 cu. yd. gravel base, 47,400 gal. RT bituminous material, 2,040 tons mineral aggregate, over $25,000. Plans deposit 70c.; S. P. 7318-13, (TH 71-141) 11,600 cu. yd. gravel base, 29,200 gal. RT bituminous material, 1,260 tons mineral aggregate. Plans deposit 55c.; S. P. 7313-03 (TH 55-142) S. P. 3410-03 (TH 55-142) and S. P. 7314-06 (TH 55-22) 15,300 cu. yd. gravel base, 1,996 cu. yd. subgrade excav., 2,700 cu. yd. gravel backfill, 36,100 gal. RT bituminous material and 1,560 tons mineral aggregate. Plans deposit 55c. O. L. Kipp, ch. engr.

Bids Asked July 21

California—State Div. Hys., Sacramento, plant mix material repairing 5.7 mi. Trinity Co.; 10.8 mi. Solano Co.; furnishing, placing imported base material and applying armor, 2 mi. Mendocino Co. G. T. McCoy, P. Wks. Bldg., Sacramento, state hy. engr.

Bids Asked

†Louisiana—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., concrete and asphalt paving, Solic. 359-43-C162, East Baton Rouge Parish.

†Massachusetts—U. S. Eng., 31 St. James Ave., Boston, (selected list bidders), roads, drainage, No. 175-43-Neg 394, Barnstable Co. Under $50,000.

Texas—State Hy. Dpt., Austin, rejected bids June 22, imprv. 22.861 mi. U.S. Hys. 96 and 190, Jasper Co. $20,000. CD 6/14—ENR 6/15.

Ont., Windsor—Municipality, D. S. Whyte, City Hall, paving Girardot Ave. and Connaugh Rd. $45,000.

LOW BIDDERS

†California—U. S. Eng., 1209 8 St., Sacramento Zone 8, grading roads, streets, paving, Spec. 573, Placer Co., from A. Teichert & Son, Inc., Box 1113, Sacramento, under **$100,000.** CD 6/29.

California—State Div. Hys., Sacramento, June 30, imprv. 0.6 mi. Santa Barbara Co., from Frederickson & Watson Constr. Co., 873 81st Ave., Oakland, and Fredricksen Bros., 1259 65th St., Emeryville, **$44,764*****3.5 mi. Contra Costa Co., from Piazza & Huntley, 195 N. 6 St., San Jose, **$66,643*****5 mi. Contra Costa Co., from Lee J. Immel, Box 65[illegible] A. Berkeley, **$75,972*****4.7 mi. Monterey [illegible] from Granite Constr. Co., Box 900, Wat[illegible]ville, **$102,236*****6.5 mi. Calaveras Co. fr[illegible] Geo. French, Jr., 320 N. Wilson Way, S[illegible]kton, **$47,779.** G. T. McCoy, state hy. engr. C[illegible] 6/11. 6/21—ENR 6/17.

Calif., San Francisco—Dpt. P. W[illegible] City Hall, June 30, concrete parking lanes [illegible] Mission St. between 20 and 25 Sts., from M[illegible] Lynch, Barneveld and Oakdale Ave., $30,622. Est. $26,837. CD 6/15—ENR 6/17.

Illinois—Dpt. P. Wks. & Bldgs., H[illegible] Div., Springfield, June 25, imprv. 0.39 mi. C[illegible]mmercial Ave., Harvey, from Andrew W[illegible]ard & Sons, Lasing, **$25,485*****2.67 mi. Ken[illegible] and Kane Counties, from Geneva Const[illegible] Co., Aurora, **$65,775*****3.62 mi. Marion Co. from Arrow Petroleum Co., Forest Park, $101,684*** 5.66 mi. Montgomery and Sangamon Counties from Sangamo Constr. Co., 700 W. Grand Ave., N., Springfield, **$184,479*****2.32 mi., Stephenson Co., from Seneca Petroleum Co., Inc., 3258 S. Canal St., Chicago, **$30,833*****12.55 mi. Whiteside and Ogle Counties, from C. F. Settle Constr. Co., 1635 Fifth Ave., Moline, $36,809. CD 6/18.

Indiana—State Hy. Comn., S. G. Hadden, chn., Indianapolis, June 29, imprv. 4.71 mi. Contr. M. 2386, Wabash Co., from Meshberger Bros., Linn Grove, **$42,888.** Est. $50,654. CD 6/18—ENR 6/24.

Maryland—State Rds. Comn., 108 E. Lexington St., Baltimore, June 29, imprv. 1.168 mi. Anne Arundel Co., from Empire Constr. Co., 31 S. Calvart St., Baltimore, **$158,382.** CD 6/23.

N. Y., Kew Gardens—President Queens Boro, Queens Boro Hall, 120-55 Queens Blvd., June 25, imprv. Borden Ave., 2nd (Front) St. and 5 St. (West Ave.), from Zara Contg. Co., Inc., 11 Prospect Ave., Hewlett, **$28,307.** Est. $20,501. CD 6/21.

★**Ohio**—State Hy. Dpt., Columbus, June 29, imprv. 5.3 mi. Butler and Hamilton Counties, from Scully Bros., 805 Atlas Bank Bldg., Cincinnati, **$70,173,** est. $72,350***12.078 mi. Columbiana, Mahoning and Portage Counties from Ohio Road Improvement Co., 341 Chamber of Commerce Bldg., Columbus $143,456, est. $168,700***1.896 mi. Lawrence Co., from Middle States Bituminous Corp., Front and McGoveny Sts., Ironton, **$37,089,** est. $37,000*** 1.443 mi. Muskingum Co., from Muskingum Valley Asphalt & Supply, Inc., Masonic Bldg., Zanesville, **$36,999,** est. $37,000***0.426 mi. Cuyahoga Co., from National Engineering & Contracting Co., W. 4 St. and Central Ave., Cleveland, **$26,549,** est. $26,600***44.3 mi. Adams, Brown, Pike and Highland Counties, from Southern Ohio Quarries Co., 150 E. Broad St., Columbus, **$76,856,** est. $77,444*** 45.87 mi. Ashtabula and Trumbull Counties, from Kinsman Sand & Gravel Co., Kinsman, **$38,236,** est. $38,326***27.4 mi. Butler and Clermont Counties, from L. P. Cavett Co., 511 Shepard Ave., Lockland, **$32,640,** est. $32,835 ***23.65 mi. Fairfield Co., from A. W. Burns Constr. Co., 424 Woodland Ave., Columbus, **$39,278,** est. $41,353***48.23 mi. Montgomery and Preble Counties, from C. J. Nible, New Vienna, **$62,552,** est. $62,965. Received no bids June 29, imprv. 21.81 mi. Licking, Muskingum and Perry Counties, 28.69 mi. Guernsey and Muskingum Counties; 19.01 mi. Clark and Logan Counties; removing existing timber bents on pier and replacing with creosoted timber bents on bridge over Penn. R.R., Tuscarawas Co. CD 6/24.

CONTRACTS AWARDED

†California—U. S. Eng., 74 New Montgomery St., San Francisco, roadwork, paving and drain lines, San Francisco Co., to Independent Constr. Co., 46th Ave. and Clement St., Oakland. Awarded 6/24.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, paving Specs. 972 and 979, Central California, to Granite Constr. Co., Box 900, Watsonville. Awarded 6/30.

†Colorado—U. S. Eng., 909 17 St., Denver, excavation and preparation of sub-grade for paving, surfacing, etc., Contr. 1728-Eng-340, Denver Co., to Carlson Constr. Co., 4150 Elati St., Denver, under **$50,000.**

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, roads, parking aprons, walks and foot bridges, Neg-Jax-Fla. 1154, Clay Co., to B. B. McCormick & Sons, Graham Bldg., Jacksonville, Zone 1, under **$50,000.** Awarded 6/24.

Ill., Aurora—Q. Frederickson, city clk., asphalt paving several streets, to Geneva Constr. Co., Aurora, **$50,391.**

Ia., Iowa City—Bd. Supervs. Johnson Co., surfacing 37.43 mi. secondary roads, to C. Chadek, Iowa City, **$40,130.** Bids 6/24. CD 6/18.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., preparation of base, prime coat, bituminous material for seal coat and cover aggregate for seal coat, Contr. 461-Eng-11891, Barton Co., to Reno Constr. Co., Merriam, under **$50,000.**

†Louisiana—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., concrete paving Vermilion Parish, to A. C. Campbell Constr. Co., 88 Crockett St., Shreveport, **$100,000-$500,000.**

†Louisiana—U. S. Eng., U. S. P. O. Customhouse & Courthouse, 25 St. and Ave. F, Gal-

STREETS, etc. Contracts Awarded, Cont'd.) veston, **Tex.**, roads and road barricades, Beauregard Parish, to W. R. Aldrich & Co., Kalwrah University Gardens, Baton Rouge, under **$50,000.**

†Maine—U. S. Eng., Park Square Bldg., Boston, Mass., paving, Neg-175-43-357, Aroostook Co., to Walsh Brothers, 150 Hampshire St., Cambridge, Mass. Est. **$50,000.**

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, reconstructing, resurfacing roads, Contr. 643-Eng-4195, Clay Co., to Roberts Constr. Co., 1018 Terminal Bldg., Lincoln, under **$50,000.**

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, reconstructing, resurfacing roads, Contr. 643-Eng-4196, Fillmore Co., to Roberts Constr. Co., 1018 Terminal Bldg., Lincoln, under **$50,000.**

North Dakota—State Hy. Dpt., J. B. Lamb, Bismarck, imprv. 86.664 mi. Bowman, Adams, Slope and Hettinger Counties, to Butler Constr. Co., Grand Forks, **$52,160.** Bids 6/28. Rejected bids June 28, imprv. 20.846 mi. Walsh and Nelson Counties. Received no bids June 28, imprv. 33.224 mi. Ramsey, Benson and Pierce Counties. CD 6/21.

O., Lorain—C. Scheferstein, dir. P. Serv., City Hall, paving Kansas Ave., to Ohio Eng. Co., 105 6 Ave., **$28,840.** H. Alexander, city engr.

†Oklahoma—U. S. Eng., 416 Wright Bldg., Tulsa, dust palliative treating shoulders, Contr. 957-Eng-1958, Alfalfa Co., to Koss Constr. Co., 205 Old Colony Bldg., Des Moines, Ia., under **$50,000.**

Ore., Canby—Ostrander Railway & Timber Co., G. Flanagan, Molalla, reconstructing 19 mi. private log road from Ostrander holdings southeast of Molalla to log dump in Willamette River, north of here. Owner builds **$30,000.**

Ore., Pendleton—City, imprv. Harris Heights district roads, Umatilla Co., to A. D. Ford & Son, Pendleton, **$36,507.** Awarded 6/25. T. C. Lovell, Pendleton, engr.

Ore., Vale—Malheur Co. Court, D. F. Graham, judge, rebuilding 1½ mi. new road on Rose Creek section and new bridge over San Hallow. Owner builds. **$25,000.**

R. I., Newport—Roadwork, bituminous penetration wearing surfacing to Dwyer Fanning Constr. Co., Girard Ave., **$48,940.** CD 6/24—ENR 7/1.

†Texas—U. S. Eng., Fort Sam Houston, motor park area addns. and expansions, Kinney Co., to W. J. Aldrich, 414 Insurance Bldg., San Antonio, under **$50,000.**

†Texas—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., constructing dust palliative treatment of shoulders, Contr. 957-Eng-1957, Gray Co., to A. H. Leal, c/o Plains Constr. Co., Pampa, **$50,000-$100,000.** Bids 6/17.

†Texas—U. S. Eng., Fort Sam Houston, road construction, Bexar Co., to Briggs & Killian Sunset Rd., San Antonio, under **$50,000.**

†Tex., Pasadena—City, D. L. Atkinson, mayor, access roads, street imprvs., Tex 41-468, to L. Vernon Miller, 823 First National Bank Bldg., Houston, **$155,813. FWA.** CD 6/14—ENR 6/17.

Alberta — Province of Alberta, Edmonton, grading road from Bickerdike to Coalspur, day labor. **$30,000.** Dpt. P. Wks., Edmonton, engr.

N. S., Shelburne—Reconstructing and ditching John, Harriet and Howatt Sts., etc., to Acadia Construction Co. Ltd., 10 Upper Water St. Halifax, $25,000 cost plus.

Quebec—Province of Quebec, Quebec City, grading, gravelling, in Wendover, to Provincial Paving Co. Ltd., 10 St. James St., Montreal. E. Gohier, Dpt. Rds., Quebec City, engr.

EARTHWORK, WATERWAYS

PROPOSED WORK

†Idaho—U. S. Eng., Pittock Blk., Portland, Ore., preliminary surveys completed, 600 ft. high dam, Nez Perce Co.

Ia., Denison—Crawford Co., shortening West Boyer River 14 mi. to avoid floods. $20,000.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, received no bids June 25, removing, disposing 770,000 cu. yd. material from Mississippi River. Inv. 1096-43-327. CD 6/15—ENR 6/17.

Ont., Long Branch (P. O. Dist., Toronto)—G. H. Clarkson, municipality clk., flood control works, removal of island in Etobicoke Creek, $35,000. Dpt. Hys., Toronto, engr.

BIDS ASKED

Bids Asked July 27

La., Abbeville—Bd. Comm. of Coulee Baton Gravity Drainage Dist., 1 of Nermilion Parish, dredging approx. 500,000 cu. yd. excav. on approx. 36 mi. existing canals. R. I. Tanner, Abbeville, engr.

CONTRACTS AWARDED

†Arkansas—U. S. Eng., U. S. Post Office & Courthouse Vicksburg, Miss., approx. 805,000 cu. yd. earthwork, west bank of Mississippi River, Sol. 1196-43-217, Chicot Co., to Pioneer Contracting Co., Dyersburg, Tenn., approx. **$232,243.** CD 6/15—ENR 6/17.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, excavation and backfill, concrete work, pipework, storage tanks, etc., Contr. 436-Eng-10239, Dade Co., to C. J. Keys, First Federal Bldg., St. Petersburg, under **$50,000.**

†Florida — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, excavation and backfill, concrete work, pipework, water control sys., water separator sys., steel storage tanks, etc., Contr. 436-Eng-10240, Dade Co., to C. J. Keys, First Federal Bldg., St. Petersburg, **$50,000-$100,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, dredging, Brazoria Co., to Standard Dredging Co., Guaranty Bldg., Galveston, **$50,000-$100,000.**

UNCLASSIFIED

PROPOSED WORK

†California—ELECTRICAL ALTERATIONS—U. S. Eng., 74 New Monigomery St., San Francisco, electrical alterations, San Francisco Co

†California—IMPROVEMENTS—U. S. Eng., 2109 S St. Sacramento, imprvs., Spec. 615, San Joaquin Co.

†California—RAILROAD WORK, etc.—U. S. Eng., 74 New Montgomery St., San Francisco, imprvs., railroad work job No. 548; electrical work Jobs No. 168-1 and 84-1, Central California.

†California—SKEET TOWER, etc.—U. S. Eng., 74 New Montgomery St., San Francisco, skeet tower, skid platforms and tables, Northern California, Spec. 985.

†Colorado—IMPROVEMENTS—U. S. Eng., 909 17 St., Denver, imprvs., Denver and Pueblo Counties. Under $100,000.

†Colorado—IMPROVEMENTS—U. S. Eng., 909 17 St., Denver, imprvs., Pueblo Co. Under $200,000.

★**†Fla., Jacksonville** — IMPROVEMENTS — City Comrs., bids soon, imprvs. $1,500,000. CAA.

Louisiana—OIL PIPELINE—Standard Oil Co., Pipe Line Dpt., Standard Oil Bldg., Shreveport, installing, maintaining 4 in. oil pipeline on the bottom, across the channel section and 3 ft. below the bottom on the side slopes, under and across Bayou Des Allemands, La-Fourche and St Charles Parishes.

Louisiana—OIL WELL—Amerada Petroleum Co., W. T. Waggoner Bldg., Fort Worth, Tex., drilling, developing 10,500 ft. oil well test, Acadia Parish.

Louisiana — OIL WELL — Mid-States Oil Corp., City Bank Bldg., Shreveport, La., and Esperson Bldg., Houston, Tex., drilling, developing new deep test oil well, Claiborne Parish.

La., Houston—OIL WELL—Bayou State Oil Co., Ardis Bldg., Shreveport, drilling, developing new deep test oil well.

La., Lake Charles—OIL WELL—Moran Oil Co., Esperson Bldg., Houston, drilling, casing, developing deep test oil well, Rapides Parish.

La., Boothville—WHARF—Police Jury of Plaquemines Parish, Pointe-a-la-Hache, 21 ft. timber wharf, 8 ft. wide, etc., near here.

La., Monroe—OIL WELL—Tensas Delta Land Co., Monroe, drilling, developing new oil well.

★**†Maryland**—WIND TUNNEL, etc.—U. S. Eng., Aberdeen, wind tunnel, power lines, appurtenances, Harford Co. $1,000,000-$1,500,000. Pittsburgh-Des Moines Co., Neville Island, Pittsburgh, Pa., engrs.

†Minnesota — ELECTRIC DISTRIBUTION SYSTEM—McLeod Cooperative Power Assn., W. C. Jungclaus, secy., Glencoe, rural electric distr. sys., McLeod and neighboring counties. $50,000 REA allot.

★**†Minn., Hibbing**—IMPROVEMENTS—City, City Clerk, imprvs. $600,000. Federal funds allocated.

Mo., Fulton—RURAL ELECTRIFICATION—Callaway Co. Electric Cooperative Assn., Fulton, rural electrification. $38,000. Funds available. Approved WPB.

★**Mo., Savannah** — ELECTRIC LINES — Northwest Missouri Electric Coop. Assn., Savannah, 400 mi. line incl. acquisition, rehabilitation and integration 142 mi. $700,000. Approved WPB.

†Montana—IMPROVEMENTS—U. S. Eng., 800 3 Ave., Seattle 4, Wash., imprvs., Custer Co.

★**†New Mexico** — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., addnl. facilities, Chaves Co. Over $1,000,000.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., Curry Co. $100,000.

N. M., Hobbs—OIL WELL—Skelly Oil Co., Hobbs, staking for drilling 4,000 ft. oil well.

†North Dakota — IMPROVEMENTS — U. S. Eng., Administration Bldg., Fort Peck, Mont., imprvs., etc., Ramsey Co. Under $500,000.

N. D., Kenmare—IMPROVEMENTS—City, imprvs. $50,000.

Okla., Ponca City—IMPROVEMENTS—City, imprvs. $50,000.

Ore., Oregon City — RAILROAD — Portland General Electric Co., Electric Bldg., Portland, rebuilding Gresham-Faraday section electric railroad, near here. $75,000.

S. D., Huron—IMPROVEMENTS—City, M. F. Wault, aud., imprvs. $50,000. Applied to CAA.

†Texas—ELECTRIC LINES, etc.—Jasper-Newton Electric Co.-Operative, Inc., c/o E. T. Ahlman, pres., Jasper, electric lines in rural area of Jasper and Newton Counties, and generating plant in Jasper. $185,000. REA allot.

Tex., Almeda—OIL WELL—Pure Oil Co., Fair Bldg., Fort Worth, drilling, developing new 8,000 ft. oil well.

Tex., Andrews—OIL WELL—Belfort Oil Co., Andrews, drilling, developing 5,000 ft. oil well test.

Tex., Anton—OIL WELL—Woodley Petroleum Co., drilling, developing new 6,200 ft. oil well test.

Tex., Aspermont—OIL WELL—Cardinal Oil Co., et al, drilling, developing new deep test oil well, Stonewall Co.

Tex., Aspermont—OIL WELL—Humble Oil & Refining Co., Humble Bldg., Houston, drilling, developing new 5,500 ft. rotary type oil well.

Tex., Beeville—OIL WELL—Mackhank Petroleum Co., Beeville, drilling, developing new 7,500 ft. oil well test.

Tex., Beaumont—OIL WELL—Sun Oil Co., 1st Natl. Bank Bldg., Dallas, drilling, developing deep test oil well.

Tex., Caldwell—OIL WELL—B. C. Bukowski, Caldwell, drilling, developing 6,000 ft. oil well.

Tex., Caldwell — OIL WELL — Marts & Beaven, Inc., Caldwell, drilling, developing 2,700 ft. oil well test.

Tex., Chapel Hill — OIL WELL — Sinclair Prairie Oil Co., Fair Bldg., Forth Worth, drilling, developing another 8,000 ft. oil well.

Tex., Cisco—OIL WELL—Hickok Producing & Developing Co., drilling, developing new 3,300 ft. oil well.

Tex., Corpus Christi—OIL WELL—Sun Oil Co., 1st Natl. Bank Bldg., Dallas, drilling, developing new 7,100 ft. oil well test.

Tex., Dilley—OIL WELL—Falcon Seaboard Oil Co., Mellie Esperson Bldg., Houston, drilling, casing, developing 4,500 ft. oil well test.

Tex., Edna—OIL WELL—Salt Dome Oil Corp., Edna, drilling, developing oil well.

Tex., Edroy—OIL WELL—Costal Refineries, Inc., et al, 1801 Semmes St., Houston, drilling, developing new 5,500 ft. oil well test.

Tex., Ella—OIL WELL—Transwestern Oil Co., Milam Bldg., San Antonio, drilling, casing, developing new deep test oil well.

Tex., Gillette—OIL WELL—H. H. Howell & Assoc., Karnes City, drilling, developing new 6,000 ft. oil well.

Tex., Grapeland—OIL WELLS—Harlan and R. Grimes, 2321 Wentworth St., drilling, developing four 6,000 ft. test oil wells. Over $25,000.

Tex., Hallettsville—OIL WELL—H. M. Christie, Hallettsville, drilling, developing deep test oil well.

Tex., Hawley—OIL WELL—Hunter & Gunter, Abilene and Wichita Falls, drilling, developing another 2600 ft. oil well.

Tex., Hawley—OIL WELL—Hunter & Hunter, Abilene, and Wichita Falls, drilling, casing, developing new 5,200 ft. rotary type oil well, 2 mi. north of here. $25,000.

Tex., Henderson—OIL WELL—F. Soape, drilling, developing deep test oil well.

Tex., Karnes City—OIL WELL—Sun Oil Co., First National Bank Bldg., Dallas, drilling, developing new 7,000 ft. oil well test.

Tex., Karnes City—OIL WELL—Sunray Oil Co. and Superior Oil Corp., Karnes City, drilling, developing new deep test oil well.

Tex., Kildare—OIL WELL—Rogers Lacy, General Delivery, Longview, drilling, developing another deep test oil well.

Tex., Laneville—OIL WELL—C. C. Thrasher, Marshall, drilling, casing, developing new 4,000 ft. oil well.

Tex., Lopeno—OIL WELL—Texas Co., Texas Bldg., Houston, drilling, casing, developing new 1,500 ft. oil well.

Tex., Matagorda — OIL WELL — Magnolia Petroleum Co. and Abercrombie Oil Co., Magnolia Petroleum Bldg., Houston, drilling, developing new 13,000 ft. oil well.

Tex., Manziel—OIL WELL—F. R. Jackson & Roy Fisher, 2619 Guillot St., Dallas, drilling, developing new 6,000 ft. oil well test.

Tex., Manziel—OIL WELLS—Sun Oil Co., 1st National Bank Bldg., Dallas, drilling, casing, developing 3 new 6,500 ft. oil wells. Over $25,000.

Tex., Mercy—OIL WELL—Shell Oil Co., Shell Bldg., Houston, drilling, developing 11,800 ft. oil well test, 525,000.

Tex., Montague—OIL WELL—Lion Oil Co., Montague, drilling, developing 9,000 ft. rotary type oil well.

Tex., New Salem—OIL WELL—Trentman Oil Co., Marshall, drilling, developing 4,200 ft. oil well test.

UNCLASSIFIED (Proposed Work, Cont'd.)

Tex., Orange Grove—OIL WELL—Kilgore Developers, Inc., and Atlantic Refining Co., Esperson Bldg., Houston, drilling, developing 6,000 ft. oil well.

Tex., Pettus—OIL WELL—Mackhank Petroleum Co., Beeville, drilling, casing, developing new 7,500 ft. oil well.

Tex., Fremont—OIL WELL—Transwestern Oil Co., Milam Bldg., San Antonio, drilling, developing deep test oil well.

Tex., Realitos—OIL WELL—Continental Oil Co., Eagle Ford Rd., Dallas, drilling, developing 2,800 ft. deep test oil well.

Tex., Roma—OIL WELL—Continental Oil Co., Esperson Bldg., Houston, drilling, developing new 4,500 ft. oil well.

Tex., Sanger—OIL WELL—Deep Rock Oil Corp., drilling, developing 4,700 ft. oil well.

Tex., Victoria—OIL WELL—Northern Ordnance Corp., Victoria, drilling, developing new 10,000 ft. oil well test.

Tex., Waelder—OIL WELL—Baldridge & King, and W. L. Pickens, Gonzales, drilling, developing new 5,500 ft. oil well test.

†Washington—ELECTRIC SERVICE SYSTEMS, etc.—U. S. Eng. 800 3 Ave., Seattle, electric service sys., signal corps. Invitations Nos. 606, 611, 60 and 608, Pierce, Clallam, Snohomish and San Juan counties.

†Washington — IMPROVEMENTS — U. S. Eng., 800 3 Ave., Seattle, imprvs. Neg. 614, Snohomish Co.

†Washington — PROTECTIVE CONCEALMENT—U. S. Eng., 800 3 Ave., Seattle, zone 4, protective concealment, Neg. 618, King Co.

†Wyo., Kemmerer — IMPROVEMENTS — City, A. Niel, clk., imprvs. $25,000. CAA.

Alta., Edmonton — IMPROVEMENTS — Municipality, imprvs. $30,000.

★**†British Columbia** — DAM — U. S. Eng., 10041 102 St., Edmonton, Alta., 100 ft. dam at Arrow Lakes, to increase storage behind Grand Coulee Dam on Columbia River. $10,000,000.

★**British Columbia** — RAILWAY—Province of British Columbia, Victoria, railway between Quesnel and Prince George, $7,000,000, Dpt. P. Wks., Victoria, engr.

B. C., New Westminster—DEEP WATER DOCKAGE—Municipality, deep water dockage back of Annieville Dyke.

B. C., Victoria—OIL and GAS DEVELOPMENT—Phillips Petroleum Co., Inc., 21 Dover Green, Dover, Del., plans to prospect, produce, and refine oil and gas.

Ont., Port Arthur — TRESTLE — Reliance Grain Co., Ltd., Box 142, Fort William, 712 ft., 3 track creosoted timber railway trestle. $60,000.

BIDS ASKED

Bids Asked July 12

†Vt., Burlington — IMPROVEMENTS—Civil Aeronautics Admin., La Guardia Field, Jackson Heights, N. Y., imprvs., grading, paving, drainage, seeding, etc. CD 10/19—ENR 10/22.

Bids Asked July 13

†Ill., Hines—TEST BORINGS—Veterans Admin., Vermont Ave., between H and I Sts. N.W., Wash., D. C., test borings.

N. Y., New York—PIER REMOVAL, etc.—Comr. Marine & Aviation, Pier A, foot of Battery Pl., North River, removal Pier Old 2a and dredging near foot of N. Moore St., North River, Contr. 2368, Manhattan Boro. Plans deposit $1.

Bids Asked

†Mississippi—CLEARING, etc.—U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., clearing, grading roads, Lowndes Co.

†Massachusetts—GRADING—U. S. Eng., 31 St. James Ave., Boston (selected list bidders), grading, No. 175-43-Neg 393, Middlesex Co. $100,000-$500,000.

†New Hampshire—GRADING, etc.—U. S. Eng., 31 St. James Ave., Boston, Mass., (selected list bidders), grading, seeding, No. 175-43-Neg 391, Hillsboro Co. Under $50,000.

†Rhode Island—CLEARING—U. S. Eng., 819 Industrial Trust Bldg., Providence (selected list bidders), clearing, No. 43-277, Kent Co.

LOW BIDDERS

†Arizona—PARKING APRON—U. S. Eng., 751 Figueroa St., Los Angeles 14, Calif., addnl. parking apron, No. 1372, Yuma Co., from Basich Bros. Constr. Co., 20530 S. Normandie Ave., Torrance, Calif., under **$300,000.** Bids 6/29.

†California—IMPROVEMENTS—U. S. Eng., 1209 8 St., Sacramento, Zone 8, imprvs., Spec. 615, San Joaquin Co., from M. J. B. Constr. Co., 322 Elk's Bldg., Stockton, under **$100,000.** CD 6/30—ENR 7/8.

★**†Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, June 25, imprvs., Sol. 35943-C156, Cameron Co., from H. B. Zachry, P. O. Box 596, San Antonio, **$500,000-$1,000,000.** CD 6/29—ENR 7/1, under LB.

†Virginia—GRADING, etc.—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., June 28, grading and soil erosion, from Corson & Gruman, 33 and K Sts. N.W., Wash., D. C., **$103,000.**

†Wash., Ampere—CARRIER CURRENT RELAYING SUPERVISORY CONTROL EQUIPMENT, etc.—Bonneville Auth., 811 N.E. Oregon St., Portland, Ore., carrier current relaying supervisory control and telemetering equip. for del. at Ampere (3014) from General Electric Co., Public Service Bldg., Portland, Ore. **$25,149.**

CONTRACTS AWARDED

†Alabama—RAILROAD FACILITIES—U. S. Eng., Grant St. west of Westwood St., Mobile, addnl. railroad facilities, Inv. 569-43-800, Montgomery Co., to Royce Kershaw Constr. Co., Nashville, Tenn. Est. **$40,000.** Bids 6/17. CD 6/16.

★**†Ark., El Dorado**—IMPROVEMENTS—Civil Aeronautics Admin., Box 1689, Fort Worth, Tex., imprvs., Sched. 1, to Palumbo Excavation Co. and Chernus Constr. Co., 710 N. 12 Blvd., St. Louis, Mo., **$527,535.** Sched. 2, concrete paving, to T. L. James & Co., Ruston, La., **$323,320.** CD 6/23—ENR 7/1, under LB.

†California—IMPROVEMENTS—Civil Aeronautics Admin., 1500-4th St., Santa Monica, imprvs., clearing, grubbing, Proposal N63-182, Mendocino Co., to Fred J. Maurer & Son, 3031 E St., Eureka, over **$50,000.**

†California—PROTECTIVE INSTALLATION—U. S. Eng., 1209 8 St., Sacramento, protective installation, Spec. 601, Yuba Co., to Sheldon Oil Co., Main St., Suisun, under **$50,000.**

★**Calif., Hunters Point**—SUBMARINE DRY DOCKS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., submarine dry docks, NOY 6183, to Ben C. Gerwick, Inc., 206 Samson St., San Francisco, **$3,684,000.**

†Calif., Watsonville — FACILITY — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., facility, NOY 6122, to Harnischfeger Corp., 82 Beale St., San Francisco, **$449,660.**

†Florida—FENCES and GATE—U. S. Eng., 575 Riverside Ave., Jacksonville, **Zone 2,** fences, gate, Neg-Jax-43-1115, Lee Co., to Moody Bros. Plumbing & Heating Co., Fort Meyers, under **$50,000.** Awarded 6/24.

†Florida—FIRE ALARM SYSTEM—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, fire alarm sys. Neg-Jax-43-999, Orange Co., to American District Telegraph Co., Western Union Bldg., Jacksonville, under **$50,000.** Awarded 6/21.

†Florida — IMPROVEMENTS — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-994, Dade Co., to Heath & Mann Constr. Co., Miami, under **$50,000.** Awarded 6/23.

†Florida — IMPROVEMENTS, etc. — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-1020, to W. T. Price Dredging Corp., 3200 S.W. 27th St., Miami, under **$50,000;** control tower, Neg-M.I.-43-40, Dade Co., to Gills Oil Co., Miami, under **$50,000,** both Dade Co. Awarded 6/23.

†Florida — IMPROVEMENTS — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-1119, to F. A. Krusen, Zephyrhills, and imprvs., Neg-Jax-43-1075, to Clyde J. Keys, St. Petersburg, each under **$50,000,** both Hernando Co. Awarded 6/24.

†Florida—RANGE—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, range, Neg-Jax-43-1101, Pinellas Co., to M. R. Vaughn, 6918 Orange Blossom Ave., Tampa, under **$50,000.** Awarded 6/22.

†Florida—RANGE—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, range, Neg-Jax-43-1099, Pinellas Co., to Sultenfuss & Scott, 803 James St., Tampa, under **$50,000.** Awarded 6/23.

†Florida—SPRIGGING and SEEDING—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, sprigging, seeding, Neg-Jax-43-1033, Collier Co., to Atlantic Bitulithic Co., Wash., D. C., under **$50,000.** Awarded 6/22.

†Florida—SPRIGGING, etc.—U. S. Eng., 575 Riverside Ave., Jacksonville Zone 2, sprigging, seeding, mucking and watering, Contr. 436-Eng-10228, Sarasota Co., to Florida Nursery & Landscape Co., Leesburg, **$50,000-$100,000.**

†Florida—TOWER and STATION—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, tower and station, Neg-Jax-43-1031, Palm Beach Co., to Southern States Constr. Co., Miami, under **$50,000.** Awarded 6/21.

†Fla., Pensacola — FACILITIES — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., physical training facilities for outlying field, Naval Aviation Training Center, NOY 6226, to E. M. Watkins Co., Tallahassee, **$440,062.**

†Georgia—GRADING, etc.—U. S. Eng., Post Office Bldg., Savannah, grading, draining, paving concrete parking apron, Contr. 819-Eng-1580, Thomas Co., to B. H. Martin, Easley, **$50,000-$100,000.**

†Georgia—STEAM PLANT MODIFICATIONS, etc.—U. S. Eng., Post Office, Savannah, steam plant modifications, addns. to boiler plant and steam distr. sys., Contr. 819-Eng-1578, Houston Co., to Webb Electric Co., Anderson, S. C., under **$50,000.** Bids 6/10.

†Kansas—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., Montgomery Co., to Jalcks Bros. Constr. Co., 400 W. Madison St., Chicago, Ill. Est. under **$100,000.**

★**†Kansas**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., Sedgwick Co., to San Ore-Miller Clarkson, Garden City, over **$1,000,000.**

†Kansas — IMPROVEMENTS — U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., Contr. 461-Eng-11917, Seward Co., to Peter Kiewit Sons' Co., 1024 Omaha Natl. Bank Bldg., Omaha, Neb., **$50,000-$100,000.**

†Louisiana—IMPROVEMENTS—U. S. Eng., U. S. P. O. Customhouse & Courthouse, 25 St. and Ave. F, Galveston, Tex., imprvs., Beauregard Parish, to W. R. Aldrich & Co., Kalwrah University Gardens, Baton Rouge, under **$50,000.**

†Louisiana—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., imprvs., (W-359-43-N.O. 17), Orleans Parish, to Pittman Brothers Constr. Co., 2800 N. Galvez St., New Orleans, under **$50,000.**

†Louisiana—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., imprvs., addns., Inv. W-359-43-(N. O. area)-17, St. Tammany Parish, to Pittman Brothers Constr. Co., 2800 N. Galvez St., New Orleans. Bids 6/22.

Md., Baltimore—OVERHEAD CRANE, etc.—American Brake Shoe & Fdry. Co., 2001 Laurens St., overhead crane, fdns. and concrete retaining wall, to Cummins Constr. Corp., 803 Cathedral St. Est. **$50,000** plus.

★**†Mich., Grosse Ile** — IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., imprvs., landing mat, taxiways, and exten. runways NOY 6114, to Lewis & Frisinger Co., Box 526, Ypsilanti, **$695,000.**

†Mississippi — IMPROVEMENTS — U. S. Eng., Grand St., west of Westwood St., Mobile, Ala., imprvs., grading, etc., Inv. 569-43-807, Harrison Co., to Taylor & Wheless, Hattiesburg, over **$100,000.** Bids 6/11.

†Nebraska—GASOLINE STORAGE SYSTEMS—U. S. Eng., 1709 Jackson St., Omaha, gasoline storage sys., Fillmore and Clay Counties, to Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y., under **$50,000.**

†Nebraska—GASOLINE STORAGE SYSTEM—U. S. Eng., 1709 Jackson St., Omaha, gasoline storage sys., Thayer Co., to Natkin & Co., 506 S. 18 St., Omaha. Est. under **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, imprvs. wells, Phelps Co., to Alide Wells Co., 601 S. Emerson St., Denver, Colo. Est. under **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, imprvs., wells, Redwillow Co., to Randecker Mach. & Mfg. Co., Lexington. Est. under **$50,000.**

†Nevada—CLEARING, etc.—Civil Aeronautics Admin., 1500 4 St., Santa Monica, Calif., clearing, grading, etc., Proposal N63-142, Schedule 1, Esmeralda Co., to Isbell Constr. Co., 1300 E. 4 St., Reno, under **$50,000;** construction work, incl. fuel oil tanks, drill well, etc., Proposal Nev. N 63-143, Schedules 2 and 3, Esmeralda Co., to H. O. Bauerle, 220 E. Valley Blvd., El Monte, Calif., under **$50,000.**

†New Jersey—FENCES—U. S. Eng., 120 Wall St., New York 5, N. Y., fences, Somerset Co., to Cyclone Fence Co., Div. American Steel & Wire Co., 796 Freilinghuysen Ave., Newark. **$50,000-$100,000.**

†New Jersey—LIGHTING SYSTEM—U. S. Eng., 6 and Walnut Sts., Phila., Pa., lighting sys. addns., Contr. 697-Eng-4756, Cape May Co., to W. E. Snell, Vineland, under **$50,000.**

†New Jersey—SPRINKLER SYSTEM—U. S. Eng., 6 and Walnut Sts., Phila., Pa., constructing, installing sprinkler sys., Monmouth Co., to Rusling Bros., 227 Fulton St., New York, N. Y. Est. **$50,000.**

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., training alds, Bernalillo Co., to J. H. Ryan, 413 S. Bryn Mawr Ave., Albuquerque, under **$50,000.** Awarded 6/23.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., converting bldgs., Bernalillo Co., to H. W. Balay, Albuquerque, under **$100,000.** Awarded 6/28.

★**†New Mexico** — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., Chaves Co., to E. Loyd, Fort Worth, Tex., and to Lee Moor Contracting Co., Bassett Tower, El Paso, Tex., each under **$1,000,000.** Bids about 6/26, awarded 6/28. CD 6/21—ENR 6/17.

†New York—RIFLE RANGE, etc.—U. S. Eng., 120 Wall St., New York, Zone 5, rifle range, housing, Contr. 1097-Eng-4093, Nassau Co., to South Shore Contracting & Dredging Corp. and J. F. Dunn, 100 West Ave., Patchogue, under **$50,000.**

†Oklahoma—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, Tex., imprvs., paving, Jackson Co., to Bell & Braden, Armarillo, Tex., **$100,000-$500,000.**

†Oklahoma—GRADING—U. S. Eng., 231 W. Main St., Denison, Tex., grading, Contr. 257-eng-2351, Jackson Co., to Bradford & Smith, Haskell, **$50,000-$100,000.**

UNCLASSIFIED (Contracts Awarded, Cont'd.)

†**Okla., Shawnee**—IMPROVEMENTS—Civil Aeronautics Admin., Dpt. Commerce, P. O. Box 1689, Ft. Worth, Tex., imprvs., to Trinidad Asphalt & Mfg. Co., 600 S. Theresa St., St. Louis, Mo., **$339,000.** Bids 6/10. CD 6/9.

★†**Oregon**—IMPROVEMENTS—U. S. Eng., Pittock Blk., Portland, imprvs., Jefferson Co., to Morrison-Knudsen Co. Inc., 411 W. 5 St., Los Angeles, Calif., and Ford J. Twaits Co., 451 S. Boylston St., Los Angeles, Calif., over **$1,000,000.** CD 4/7—ENR 4/15.

★†**Pennsylvania** — IMPROVEMENTS — U. S. Eng., 925 New Federal Bldg., Pittsburgh, imprvs., grading, paving, seeding, drainage work. McKean Co., to Larkin Co., Inc., Camp Hill, **$500,000-$1,000,000.** CD 6/22—ENR 6/24, under LB.

†**Rhode Island**—ELECTRICAL DISTRIBUTION SYSTEM—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., electrical distr. sys., NOY 6609, to New England Power Service Co., 441 Stuart St., Boston, Mass., **$268,500.**

†**Rhode Island**—FACILITIES—U. S. Eng., 819 Industrial Trust Bldg., Providence, addnl. facilities, station, No. 43-250, Newport Co., to City Lumber Co. of Bridgeport, Inc., 75 Third St., Bridgeport. Est. under **$50,000.** Bids 6/23. CD 6/18.

†**Rhode Island** — IMPROVEMENTS — U. S. Eng., 819 Industrial Trust Bldg., Providence, imprvs., No. 43-269, Kent Co., to L. A. Byrne, Main St., Dennisport, Mass. Est. **$100,000-$500,000.** Bids 6/26. CD 6/22.

R. I., Woonsocket—COAL UNLOADING FACILITIES—Branch River Woolen Co., coal unloading facilities, incl. railway trestle, storage, handling facilities, etc., to Temple & Crane, Inc., 80 Federal St., Boston, Mass. Bids 6/21. Lockwood-Greene Co., 10 Rockefeller Plaza, New York, N. Y., engrs. CD 5/28.

†**South Carolina** — APRON SURFACING — U. S. Eng., Post Office Bldg., Savannah, Ga., surfacing apron and taxiways, Contr. 819-Eng-1566, Anderson Co., to Sam Finley, Inc., 292 North Ave. N.W., Atlanta, Ga., under **$50,000.**

†**South Carolina**—IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, imprvs., Contr. 231-Eng-1508 Richland Co., to Boyle Constr. Co., Sumter, under **$50,000.**

★†**South Carolina**—IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, imprvs., Orangeburg Co., to MacDougald Constr. Co., Northside Dr. N.W., Atlanta, Ga., over **$1,000,000.** CD 6/9—ENR 6/17.

†**S. D., Aberdeen**—IMPROVEMENTS—Civil Aeronautics Admin., W. D. Kliner, dir., City Hall, Kansas City, Mo., imprvs., to Megarry Bros., 437 33 Ave. N., St. Cloud, Minn., **$165,000.** R. C. Herner, City Hall, Kansas City, Mo., const. engr. Bids 6/21.

†**Texas**—ELECTRIC DISTRIBUTION SYSTEM—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., electric distr. sys., Contr. 957-Eng-1956, Dallam Co., to North Texas Constr. Co., Sherman, under **$50,000.**

†**Texas**—GROUNDS DEVELOPMENT—U. S. Eng., Fort Sam Houston, grounds development, sodding, grassing, etc., Maverick Co., to Houston Lawn Service, 716 W. Gray, Houston, under **$50,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., Brown Co., to Chas. H. Oehler, 1005 Travis Blvd., San Antonio, and 5007 Bway., Galveston, under **$50,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., imprvs., dust palliative, etc., Sol. 957-Neg-43-307, Dallam Co., to Standard Paving Co., 2119 E. 11 St., Tulsa, Okla., **$100,000-$150,000.** Bids 6/11.

†**Texas**—IMPROVEMENTS, etc.—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., imprvs., aprons, runway extens., taxiways, dust palliative treatment, etc., to L. F. Dow & Co., Los Angeles, Calif. **$100,000-$150,000*****grading and electric ducts, to Williams & Whittle, 5422 Mockingbird Lane, Dallas, **$100,000-$500,000***** runways, aprons, taxiways, dust palliative treatment, etc., to Ottinger Bros., Petroleum Bldg., Oklahoma City, Okla., **$100,000-$500,000,** all Sol. 957-Neg-43-311, Dallam Co.

†**Texas**—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., imprvs., street construction and grading, Sol. 957-Neg-43-399, Dallam Co., to H. Stafford, Lubbock, under $50,000.

†**Texas**—IMPROVEMENTS, etc.—U. S. Eng., Fort Sam Houston, imprvs., etc., Howard Co., to D. H. Keith, Midland, under **$50,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., training aids, Kinney Co., to C. L. Browning, Jr., 812 Insurance Bldg., San Antonio, over **$100,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, imprvs., Victoria Co., to Collins & Bland Constr. Co., P. O. Box 792, Austin, **$100,000-$500,000.**

†**Texas**—RAILWAY SPUR TRACKS, etc.—U. S. Eng., Fort Sam Houston, railway spur tracks, etc., Coryell and Bell Counties, to Martin & Grace, Rio Grande National Bldg., Dallas, under **$50,000.**

†**Texas**—RAILWAY SPUR TRACKS, etc.—U. S. Eng., Fort Sam Houston, railway spur tracks, etc., Kinney Co., to Martin & Grace, 710 Rio Grand National Life Bldg., Dallas, under **$50,000.**

†**Texas**—TRANSITION COURSE RANGE—U. S. Eng., Fort Sam Houston, transition course range, Bastrop Co., to Holland Page, Norwood Bldg., Austin, under **$50,000.**

Tex., Clareville—OIL WELL—Brewer-Hixon Oil Co., Milam Bldg., San Antonio, drilling, developing new 4,500 ft. oil well test, to Rowan & Hope, Inc., Milam Bldg., San Antonio, approx. **$25,000.**

Tex., Quitman — OIL PIPELINE — Central Pipe Line Co., Hawkins, 46 mi. 6 in. oil carrier, force account. Approx. **$82,000.** CD 6/28.

†**Virginia**—RADIO STATION—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., radio station addn., Arlington Co., to Walter B. Avery, **629 F St. N.W., Wash., D. C. $41,414.** CD 6/11.

†**Washington** — CONSTRUCTION — U. S. Eng., 800 3 Ave., Seattle, Zone 4, addnl. construction (unspecified), Spokane Co., to Clyde M. Ludberg Co., W. 326 1 St., Spokane, and R. L. Bair & Co., 1220 Ide St., Spokane, each under **$50,000.**

†**Washington**—FENCE—U. S. Eng., 800 3 Ave., Seattle, zone 4, fence, Snohomish Co., to Mortensen Constr. Co., 1021 Westlake Ave. N., Seattle, zone 9, under **$50,000.**

†**Washington**—GASOLINE SYSTEM—U. S. Eng., 800 3 Ave., Seattle, zone 4, gasoline sys., Grant Co., to Clyde M. Ludberg, W. 326 1st, Spokane, under **$50,000.**

†**Washington**—UTILITIES—U. S. Eng., 800 3 Ave., Seattle, zone 4, utilities, King Co., to C. R. Beal, 730 Republic Bldg., Seattle, zone 1, under **$50,000.**

★**Wash., Seattle** — IMPROVEMENTS — Civil Aeronautics Admin., Boeing Field, Seattle S, imprvs., to Minnis & Moody, Johnson, Inc., and Vista Constr. & Financing Co., San Bernardino, Calif. Est. **$1,400,000.** Bids 6/16. CD 6/12.

★**Brazil**—IMPROVEMENTS—U. S. Eng., 169 E. Flagler St., Miami, Fla., and Pan American Airways System, 135 E. 42 St., New York, N. Y., U. S. A., imprvs., to Elmhurst Contr. Co., 53-09 97 St., Corona, N. Y., U. S. A.

Alta., Pearce — IMPROVEMENTS — Transport Dpt., Ottawa, Ont., imprvs., grading, drainage, etc., to General Const. Co., Ltd., Edmonton, about **$180,000.**

Alta., Wainwright—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., clearing, stumping, grading, drainage, etc., to A. A. Voice, Bradwell, Sask., about **$80,000.** CD 3/10—ENR 3/18.

British Columbia—IMPROVEMENTS—Dpt. M. & S., Ottawa, Ont., imprvs., dredging at R.C.A.F. Station, to Coast Constr. Co., Ltd., 510 Hastings St., Vancouver, B. C., **$20,000.**

B. C., Boundary Bay—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., addnl. development imprvs., stripping, grading rolling, dragging, smoothing, fertilizing, seeding, etc., to Dawson, Wade & Co., Ltd., 775 Clark St., Vancouver, about **$190,000.**

B. C., Post Hardy—RADIO RANGE BLDG.—Dpt. Transport, Ottawa, Ont., radio range bldg., etc., to General Constr. Co., Ltd., Granville Island, Vancouver, about **$170,000.**

Man., Winnipeg — IMPROVEMENTS — Dpt. National Defense (Air), Ottawa, Ont., imprvs., to Bird Const. Co. Ltd., 708 Confederation Life Bldg., **$184,000.**

N. S., Halifax — ACCOMMODATION — Dpt. Natl. Defense (Army), Ottawa, Ont., accommodation for C.W.A.C. personnel, to Stewart Constr. Co., Ltd., 7 Dufferin Ave., Sherbrooke, Que., about **$220,000.**

N. S., Halifax—FENCING, etc.—Dpt. Natl. Defense (Army), Ottawa, Ont., supplying, tabbing, detailing, bending, reinforced steel for constr. fencing and gates at R.C.O. Depot, Willow Park, to Truscan Steel Co. of Canada, Ltd., Walkerville, Ont., about **$59,000.**

Ont., London — IMPROVEMENTS — Dpt. Transport, Ottawa, Ont., addnl. development imprvs., clearing, stumping, stripping, grading, rolling, digging, smoothing, fencing, drainage, etc., to Towland Constr. Co., Ltd., 294 Dundas St., London, about **$360,000.**

Ont., Port Maitland—PIER—Dpt. P. Wks., Ottawa, repairing west pier, to Cameron & Phin, Water St., Welland, about **$30,000.** Bids 6/4. CD 5/25—ENR 5/27.

Ont., Willoughby — IMPROVEMENTS — Transport Dpt., Ottawa, development imprvs., clearing, stumping, grubbing, drainage, fencing, etc., to Armstrong Brothers Constr. Co., Ltd., Brampton, about **$50,000.** Bids 5/17. CD 5/6—ENR 5/13.

Ont., Windsor—LOADING DOCK—Chrysler Corp. of Canada, Ltd., 300 Tecumseh Blvd. E., loading dock addn., to Dinsmore & McIntire, Ltd., 903 Security Bldg., about **$50,946.** CD 6/7—ENR 6/10.

LATIN AMERICA

Mexico—Com. Fed. de Electricidad, Callejon de 5 de Mayo, Mexico, D. F., plans hydroelectric plant to service communities within a radius of 100 kilometers, of Tomata, State of Vera Cruz. $615,000. Commission's Engineers have made plans and budget.

Mexico, Nuevo Laredo—Nuevo City Civic Improvement Bd., Nuevo Laredo, plans constructing, equipping sports field and arena, etc. Over $25,000. Planning Federal Aid.

PUBLIC BUILDINGS

PROPOSED WORK

†**Alabama**—U. S. Eng., Grant St. west of Westwood St., Mobile, bldg., Project T-6662, Etowah Co., $14,000.

†**Ala., Birmingham**—Home Owners' Loan Corp., 114 Marietta St., Atlanta, Ga., 150 family housing conversion.

†**Arizona**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., plans by Lescher & Mahoney, 1100 Title & Trust Bldg., Phoenix, dormitories, Ariz. 2320. CD 5/19—ENR 5/27.

†**Ariz., Kingman**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., plans by Lescher & Mahoney, 1100 Title & Trust Bldg., Phoenix, 100 dormitory units, Ariz. 2320.

†**Ariz., Morenci-Clifton** — Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., 10 family units, Ariz. 2324.

†**Ariz., Winslow**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., converting dormitory into 80 family units, Ariz. 2325.

†**California**—City of Vallejo Housing Auth., M. J. Wilsie, exec.-dir., Victory Apts., Ryder St., Vallejo, plans by H. J. Devine, Cronan Bldg., Sacramento, child care center, Calif. 4083-4084, for NHA.

†**California**—City of Vallejo Housing Auth., M. J. Wilsie, exec.-dir., Victory Apts., Ryder St., Vallejo, plans by H. J. Devine, Cronan Bldg., Sacramento, community bldg., at Carquinez Heights Housing, Calif. 4086, for NHA.

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by Marsh, Smith & Powell, 516 Architects Bldg., Los Angeles, and J. Dewey Harnish, Box 395, Ontario, trailer units.

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by Chas. E. Butner, 7 Winham St., Salinas, dormitory accommodations, Calif. 4715. CD 5/26—ENR 6/10.

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by T. C. Bernardi & E. Elmore Hutchison, 58 Sutter St., San Francisco, dormitory accommodations, Calif. 4725; family dwelling units, Calif. 4726. CD 6/18—ENR 6/24.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., Spec. 839, San Francisco Co.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., Central California, Spec. 968.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, housing, Spec. 983, San Francisco Co.

†**Calif., Blythe**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 40 dormitories, Cal. 4729, 70 family dwelling units, Cal. 4730.

†**Calif., Modesto**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 40 family dwelling units, Calif. 4727, 24 dormitories, Calif. 4728.

†**Calif., Pittsburg**—Federal Works Agency, 2223 Fulton St., Berkeley, plans by Franklin & Kump., 251 Kearny St., San Francisco, wood frame USO bldg. $15,000.

Calif., Richmond—U. S. Maritime Comn., Financial Center Bldg., Oakland, wood frame recreation bldg. $70,000-$75,000. Engrg Dpt. of H. J. Kaiser Co., Richmond Shipyard 4, engrs.

†**Calif., San Louis Obispo**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 60 dormitory units, Calif. 4733; 20 family units, Calif. 4734.

†**Colorado**—U. S. Eng., 909 17 St., Denver, storage bldg. El Paso Co. Under $50,000.

†**Fla., Boca Raton**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., 288 dormitory units, Fla. 8211 and 380 family dwelling units, Fla. 8212.

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, bldg., No. 14487, Houston Co. $50,000.

†**Georgia**—U. S. Eng., 512 Spring St. N.W., Atlanta, bldg., Project T-6554, Catoosa Co. $32,000.

†**Georgia**—U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., housing, Project T-6594, Chattahoochee Co. $65,000.

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, bldg., Project A-14760, Ware Co. $45,000.

†**Ga., Atlanta**—Home Owners' Loan Corp., 114 Marietta St., 1,000 family housing conversion.

†**Ga., Hinesville**—Pub. Housing Auth., Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, 60 dormitory units, GA. 9159; 40 family dwelling units, GA. 9160.

†**Ga., Warner Robins**—Pub. Bldg. Admin. (Emergency Operations Unit), 18 and F Sts. N.W., Wash., Zone 25, D. C., bids soon grade

PUBLIC BLDGS. (Proposed Work, Cont'd.)

school, Ga. 9231, $130,000 appropriated. **FWA.**

†**Idaho**—U. S. Eng., 628 Pittock Blk. SW., 10 Ave. and Washington St., Portland, Ore., housing.

†**Idaho, Patterson**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., Seattle, Wash., 40 family unit housing, Ida. 10105.

Ill., Moline—City, A. Henry Arp, mayor, contagion hospital and nurses home addns., Moline Public Hospital, $270,000. Applied for FWA funds.

★**Ind., Evansville**—Bd. Trustees, Evansville State Hospital, J. H. Hare, supt., plans nearing completion by McGuire & Shook, 1401 Fletcher Trust Bldg., Indianapolis, Zone 4, rebuilding 5 cottage type bldgs., Insane Hospital. $2,500,000. Jno. M. Rotz Engineering Co., 804 Merchants Bank Bldg., Indianapolis, Zone 4, mechanical engr.

Ind., Kendallville—Bd. P. Wks., E. V. Carteaux, mayor, chn., bids soon, imprv. municipal power plant, new boiler, stoker, accessory equip., structural alterations. $100,000. R. W. Noland, 207 Medical Arts Bldg., Fort Wayne, consult, engr.

†**Ind., Kokomo**—Home Owners' Loan Corp., 336 N. Wells St., Chicago, Ill., 40 unit family housing.

Ind., Williams—B. Radcliff, Twp. Trustee, Huron, sketches by McGuire & Shook, 1401 Fletcher Trust Bldg., Indianapolis, Zone 4, 2 story, bsmnt., high and grade school. $150,000.

†**Kansas**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., plans by Marshall & Brown, engrs.-archts., 114 W. 10 St., Kansas City, Mo., family housing, Kan. 14133. CD 6/18—ENR 6/24.

★†**Kentucky**—Ashland Oil & Refining Co., Ashland, addnl. plant facilities. $2,500,000. Defense Plant Corp. will finance.

†**Mich., Adrian**—Pub. Housing Auth., NHA, 2073 E. 9 7 St., Cleveland, O., site for 50 private trailers, Mich. 20202.

†**Mich., Benton Harbor**—Home Owners' Loan Corp., 336 N. Wells St., Chicago, Ill., 75 unit family housing conversion.

†**Mich., Benton Harbor**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., 40 family trailers, Mich. 20201.

†**Mich., Detroit**—Pub. Housing Auth., NHA, 300 family trailers, Mich. 20203.

†**Mich., Flint**—Home Owners' Loan Corp., 336 N. Wells St., Chicago, Ill., 125 unit family housing conversion.

†**Mich., Flint**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., 150 unit family trailers, Mich. 20204.

†**Minnesota**—U. S. Eng., 1709 Jackson St., Omaha, Neb., engineer-architect services by Ellerbe & Co., E. 1021 1st Natl. Bank Bldg., St. Paul, for airplane propeller factory, Contr. 643-Eng-4162, Ramsey Co.

†**Miss., Grenada**—Home Owners' Loan Corp., Sterick Bldg., Memphis, Tenn., 60 family housing conversion.

†**Miss., Grenada**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., 60 dormitory housing, Miss. 22169.

†**Miss., Vicksburg**—Home Owners' Loan Corp., Sterick Bldg., Memphis, Tenn., 30 unit family building conversion.

†**Nebraska**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., postponed bids to have been opened June 18, administration bldg., Projects 25041 and 25042. Fisher & Fisher, Denver Natl. Bank Bldg., Denver, Colo., engrs.-archts. CD 5/25—ENR 5/27.

†**Nev., Ely**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., 100 unit family dwellings, Nev. 26152.

†**New Jersey**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., rejected bids bldg., Atlantic Co. CD 4/26—ENR 4/29, under LB.

†**N. J., Bayonne**—Jersey City—Home Owners' Loan Corp., 2 Park Ave., New York, N. Y., 50 family housing conversion.

†**N. J., Paterson**—St. Joseph's Hospital, 703 Main St., hospital bldg., addn. alterations. $478,000. Federally financed. CD 6/10—ENR 6/18.

†**New Mexico**—U. S. Eng., Albuquerque, bldg., Santa Fe Co. Under $50,000.

†**New Mexico**—U. S. Eng., Albuquerque, bldg. and control tower, Lea Co. Under $100,000.

†**North Carolina**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., bldgs., walks, etc.

†**Ohio**—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., 1 story, 48x96 ft., brick, concrete heating plant, Cuyahoga Co., $50,000-$100,000. Wilbur Watson & Associates, 4614 Prospect Ave., Cleveland, engrs.

†**O., Lima**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 135 unit family trailer housing, Ohio 33270.

†**O., Lima**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 140 unit family housing, Ohio 33271.

†**Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, engineer-architect services by J. Gordon Turnbull & Sverdrup & Parcel, Railway Exchange Bldg., St. Louis, Mo., addnl. facilities, Contr. 957-Eng-1928, Tulsa Co.

†**Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, engineer-architect services by Austin Co., 16112 Euclid Ave., Cleveland, O., addnl. facilities, Contr. 957-Eng-1929, Oklahoma Co.

†**Okla., El Reno**—Home Owners' Loan Corp., Cotton Exchange Bldg., Dallas, Tex., 35 unit family housing conversion.

†**Oregon**—Pub. Housing Auth., NHA, Alderway Bldg., Portland, plans by H. R. Perrin, 1009 Spalding Bldg., Portland, row-house dwellings. $300,000.

†**Oregon**—Santiam Flax Growers, A. L. Page, pres., Jefferson, new plant facilities, bldgs., etc. $165,000. Defense Plant Corp. will finance.

†**Ore., Astoria**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 100 unit family housing, Ore. 35263.

†**Ore., Grand Ronde**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 100 family trailers, Ore. 35264.

†**Ore., Lebanon**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 50 family trailers, Ore. 35265.

†**Ore., Sweet Home**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 50 family trailers, Ore. 35267.

†**Ore., Sweet Home**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 100 family unit housing, Ore. 35266.

†**Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway, New York 7, N. Y., plans by Ed. H. Wigham, 315 S. 15 St., Phila., family unit housing, Pa. 36436. CD 6/23—ENR 7/1.

†**Pennsylvania**—Pub. Housing Auth., NHA, 270 Broadway, New York 7, N. Y., plans by Ed. H. Wigham, 315 S. 14 St., Phila., family unit housing, FA 36435. CD 6/23—ENR 7/1.

†**Pa., Chambersburg**—Home Owners' Loan Corp., 2 Park Ave., New York, N. Y., 100 unit family housing conversion.

†**Texas**—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, plans by Consolidated Architects-Engineers, Capps Bldg., Fort Worth, family trailer units, Tex. 41586; dormitory trailer units, Tex. 41587. CD 6/23—ENR 7/1.

†**Texas**—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, trailer camp unit, Tex. 41-586. Consolidated Archts. & Engrs., Capps Bldg., Fort Worth, engrs.-archts.

†**Texas**—Pub. Housing Auth., NHA, 1309 Electric Bldg., Fort Worth, trailers, Tex. 41583.

†**Texas**—Pub. Housing Auth., NHA, 1309 Electtric Bldg., Fort Worth, trailers, Tex. 41582.

†**Texas**—U. S. Eng., Fort Sam Houston, bldg., facilities, McCulloch Co.

†**Tex., Corpus Christi**—Home Owners' Loan Corp., Cotton Exchange Bldg., Dallas, 50 family unit conversion program.

†**Tex., Dalhart**—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, 36 dormitory units, Tex. 41685 and 160 family units, Tex. 41584.

†**Tex., Galveston**—Home Owners' Loan Corp., Cotton Exchange Bldg., Dallas, 100 family unit conversion program.

Tex., Harlingen—H. Ramsey, mayor, 75 to 100 dwellings. Applying for NHA funds.

†**Tex., Harlingen**—Valley Baptist Hospital, ward bldg., remodeling existing bldgs., etc., $150,000. **FWA.**

†**Tex., Houston**—Home Owner's Loan Corp., Cotton Exchange Bldg., Dallas, 250 family housing conversion.

Tex., San Antonio—City Pub. Service Co., St. Mary's St., electric generating plant addn., incl. 20,000 k.w. steam turbine unit, etc.

†**Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, bldg., Weber Co. Under $50,000.

†**Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, bldg., Tooele Co. Under $25,000.

†**Utah, Salt Lake City**—St. Marks Hospital, 2nd West and 7th North Sts., plans by Ware & McClenahan, 610 Utah Savings & Trust Bldg., hospital addn. $363,000. **FWA.**

†**Utah, Wendover**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 180 dormitory housing, Utah 42158.

†**Utah, Wendover** — Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 140 unit family housing, Utah 42157.

†**Va., Norfolk-Portsmouth** — Pub. Housing Auth., NHA. Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., plans by A. M. Lublin, Dickson Bldg., Norfolk. 20 unit dormitory housing, Va. 44295 and 10 unit family dwellings, Va. 44296.

†**Va., Portsmouth**—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., 25, D. C., Norfolk County Hospital and nurses home, Docket VA44-272. **FWA.**

†**Washington**—Pub. Housing Auth., NHA, Skinner Bldg., Seattle, housing units.

†**Washington**—Pub. Housing Auth., NHA, Skinner Bldg., Seattle, single unit dormitory housing.

†**Washington**—Pub. Housing Auth., NHA, Skinner Bldg., Seattle, housing, and single unit dormitory housing.

†**Washington**—U. S. Eng., 800 2 [illegible], Seattle, Zone 4, gate house, Neg. 616, King Co.

†**Washington**—U. S. Eng., [illegible] 3 Ave., Seattle, bldgs.

†**Wash., Metaline Falls**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 35 unit dormitory housing (by conversion), Wash. 45224.

†**Wash., Metaline Falls** — Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 80 unit family housing, Wash. 45223.

†**Wash., Seattle**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, Calif., 500 unit family housing.

★†**Wash., Seattle**—King County Medical Service Corp., Stimson Bldg., plans by G. W. Stoddard, Orpheum Bldg., 2 story, bsmnt., 250x260 ft. rein.-con. hospital, Terry Ave. and Seneca St. $817,000. TWA.

†**Wash., Seattle**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., 40 unit family housing, Wash. 45225.

†**Wash., Seattle**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., 200 unit family housing, Wash. 45226.

†**Wash., Seattle**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., 504 unit dormitory housing, Wash. 45227.

†**Wash., Seattle**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., 160 unit family housing, Wash. 45229.

†**Wash., Seattle**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., 384 unit dormitory housing, Wash. 45230.

†**Wis., Racine-Kenosha**—Home Owners' Loan Corp., 336 N. Wells St., Chicago, Ill., 325 unit family housing conversion.

†**Wyoming**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., postponed bids to have been opened June 9, administration bldg., Project 48011. Fisher & Fisher, Denver Natl. Bldg., Denver, Colo., engrs.-archts. CD 5/25—ENR 5/27.

B. C., New Westminster—Municipality, [illegible] dwelling units. $300,000.

N. B., St. John—Municipality, vocational school exten. $225,000, incl. equip.

N. B., Saint John—Saint John General Hospital, Dr. Hevitt, supt., 6 story, brick hospital and nurses home addn. $170,000.

★**N. B., Saint John**—Wartime Housing Ltd., 55 York St., Toronto, Ont., 150 addl. dwelling units. About $500,000-$600,000.

Ont., Hamilton — Dominion Govt., Ottawa, leased 17 acre site for shipbuilding plant, $100,000. Dpt. M. & S., Ottawa, engrs.

Ont., London—University of Western Ontario, London, plans by O. Ray Moore & Co., 260 Dundas St., permanent armory for Canadian Officers' Training Corps. $250,000.

Ont., Ottawa—Brazil Government, c/o Hon. Caio de Mello Franco, Victoria Bldg., remodelling premises Wilbrod St. and extension thereto for purpose of Legation for Brazil and residence for the Minister. $150,000.

★**Ont., Sarnia**—Wartime Housing Ltd., 55 York St., Toronto, 200 addn. housing units. $700,000-$800,000.

★**Que., Arvida**—Wartime Housing Ltd., 55 York St., Toronto, Ont., 300 addnl. dwelling units. About $750,000-$850,000.

BIDS ASKED

Bids Asked After July 9

†**Pa., Turtle Creek**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., administration bldg. and play areas, Pa. 36121. Plans deposit $25; site imprvs. for same job. Plans deposit $25. F. H. Smart, Magee Bldg., Pittsburgh, archt. CD 6/23—ENR 7/1.

Bids Asked July 12

†**New Jersey**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., dormitories, N.J. 28160 and temporary family dwellings, N.J. 28161. Extended date. Plans deposit $10. Van Nuys & Gruzen, 921 Bergen Ave., Jersey City, archts. CD 6/28—ENR 7/1.

†**Ohio**—Dayton Metropolitan Housing Auth., Dayton, permanent housing, Ohio 33155. [illegible] NHA. Plans deposit $50. Extended date. Walter J. Thies & Assoc., 1203 Miami Savings Bank Bldg., Dayton, archts. CD 6/11—ENR 4/29.

Bids Asked July 13

†**Md., Annapolis**—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., 50 unit family dwellings, MD 18258. Tentative date. Wm. N. Denten, 1719 I St. N.W., Wash., D. C., archts. CD 6/16—ENR 6/24.

†**New Jersey**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., civic center, incl. community bldg., child service center and commercial bldg. for housing, NJ 2[illegible]. Extended date. Plans deposit $50. B. Somma, Gruzen-H. A. Kelly, 921 Bergen Ave., Jersey City, engrs.-archts. CD 6/30—ENR 6/24.

Bids Asked About July 15

†**Georgia**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, dwelling units, Ga. 9[illegible] and Ga. 9158. Tentative date. Plans deposit $50. E. Ellis League, Grand Bldg., Marietta, archt. CD 6/23—ENR 7/1.

PUBLIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked July 15

†**Utah**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., housing, site imprvs., Utah 42155. Ashton, Evans & Hodgson, Beneficial Life Bldg., Salt Lake City, archts.

†**Pa., Glenolden**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., repairing road, altering club house, Pa. 36262. Plans deposit $25. Gleeson & Mulrooney, 1612 Market St., Phila., archts.

Bids Asked About July 16

†**Oregon**—Washington County Flax Growers Assoc., Hillsboro, A. H. Abts, secy.-treas., flax processing plant. $165,000. Federally financed.

†**Tenn., Everett**—Pub. Bldgs. Admin. (Emergency Operations), 18 and F Sts. N.W., Wash. 25, D. C., school, Tenn. 40-111. $105,000. **FWA.** Barber & McMurry, 517½ W. Church Ave., Knoxville, archts. CD 6/23—ENR 7/1.

Bids Asked July 17

†**N. J., East Paterson**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., community bldg., N.J. 28051. Tentative extended date. Plans deposit $10. L. V. Pohlman, 1140 E. Jersey St., Elizabeth, archt. CD 6/23—ENR 7/1.

†**O., Newton Falls**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, community bldg., Ohio-33044. Tentative date. L. E. Yelker, 31 N. Summit St., Akron, archt.

Bids Asked July 19

†**Ohio**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, temporary family dwellings, Ohio 33265. Plans deposit $50. Britsch & Metzger, 1025 Nicholas Bldg., Toledo, archts. CD 6/16—ENR 6/24.

†**O., Dayton**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 564 unit family dwellings, Ohio 33263. Extended date. Potter, Tyler & Martin, 35 E. 7 St., Cincinnati, archts. CD 6/16—ENR 6/24.

Bids Asked July 20

†**Calif., Watsonville**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 50 dormitory units, Calif. 4715. Tentative date. C. E. Weiner, 7 Winham St., Salinas, archt. CD 6/23—ENR 7/1.

†**Ohio**—Dayton Metropolitan Housing Auth., temporary family housing, Ohio 33252, for NHA. Extended date. Plans deposit $50. Dayton Housing Architects, 3rd Natl. Bank Bldg., Dayton, archts. CD 6/16—ENR 6/24.

Bids Asked July 21

†**Tex., Harlingen** — Regional Eng., FWA, 311 Electric Bldg., Fort Worth, ward bldg., remodeling existing bldgs., etc., Tex. 41-416, for Valley Baptist Hospital, Harlingen. $150,-000. Plans deposit $15. W. C. Hedrick, 1001 First National Bank Bldg., Fort Worth, engrs. CD 6/23—ENR 7/8

Bids Asked July 22

†**O., Barberton**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 240 unit family dwellings, Ohio 33264. Extended date. Kraus, Hoppes, Wagner & Welker, Associated Housing Architects of Akron, First Central Tower, Akron, archts. CD 6/16—ENR 6/24.

†**O., Dayton**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, community bldg., Ohio 33051. Extended date. E. G. Conrad, Hanna Bldg., Cleveland, archt. CD 5/20—ENR 5/27.

Bids Asked July 23

†**Wyoming** — Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Blvd., Kansas City, Mo., dwellings, Project 48081. F. L. Linden, 917 Insurance Bldg., Denver, Colo., engr.-archt. CD 5/20—ENR 5/27.

Bids Asked After July 26

†**Pa., Aliquippa**—Pub. Housing Auth., NHA., 270 Bway., New York 7, N. Y., child care center, PA-36051. Plans deposit $25. Housing Architects of Beaver Co., 199 9 St., Monaca, archts. CD 5/20—ENR 5/27.

Bids Asked July 28

†**Utah**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., dwellings, Project 42154. Five Associates, 29 W. State St., Halt Lake City, engrs.-archts. CD 5/27—**ENR 6/24.**

†**Wyoming**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 40 unit dwellings, management and maintenance bldg., Wyo. 48082. Five Associates, 29 W. State St., Salt Lake City, engrs.-archts. CD 5/26—ENR 6/10.

†**Pa., Scott Twp.**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., tenant activity bldg., commercial bldg., site work, PA-36212, for Allegheny Co. Housing Auth., 201 County Office Bldg., Pittsburgh. Plans deposit $25.

†**Pa., Shaler Twp.**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., maintenance bldg. addn., imprvs. and commercial bldg., PA. 36161, for Allegheny County Housing Auth., 201 County Office Bldg., Pittsburgh. Plans deposit $25.

Bids Asked July 30

†**Va., Camp Pendleton**—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., 20 unit dormitory building conversion, Va.-44205 and 10 unit family housing bldg. conversion, Va. 44296. A. M. Lublin, Dickson Bldg., Norfolk, archt.

Bids Asked August 2

†**Pa., Allentown-Bethlehem**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., 250 family dwelling units, Pa. 36429. Tentative date. Lovelace & Spillman, 103 W. Broad St., Bethlehem, archt. CD 6/23—ENR 7/1.

Bids Asked August 6

†**Va., Williamsburg**—Pub. Housing Auth., NHA, Temporary Bldg 2, 19 and D Sts. N.W., Wash., D. C., 260 unit family dwellings, Va. 44285. Extended date. Wiley & Wilson, Lynchburg, engrs.-archts. CD 6/16—ENR 6/24.

Bids Asked August 11

†**Calif., Bieber**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 36 dormitory units, Calif. 4725 and 20 family dwelling units, Calif. 4726. Tentative date. Hutchinson & Bernardi, 58 Sutter St., San Francisco, archts. CD 6/30—ENR 7/8.

†**Maryland**—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., 144 unit dormitory housing, Md. 18261; 72 unit dormitory, Md. 18262; 120 unit family dwellings, Md. 18263; 200 unit family dwellings, Md. 18264; 30 unit family dwellings, Md. 18265, all St. Marys Co. Tentative date. L. Justement, 1223 Connecticut Ave. N.W., Wash., D. C., archts. CD 6/23—ENR 7/1.

Bids Asked

†**Maine**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., storm water drainage, grading, for N.H. 27011-27012, Whitman & Howard, 89 Broad St., Boston, Mass., engrs.

†**Maine**—U. S. Eng., 31 St. James Ave., Boston, Mass. (selected list bidders), temporary bldgs., No. 175-43-Neg 388, Aroostook Co., $100,000-$500,000.

†**Maine**—U. S. Eng., 31 St. James Ave., Boston, Mass., (selected list bidders), temporary bldgs., No. 175-43-Neg 390.

†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston, (selected list bidders), housing, No. 175-43-Neg 395, Norfolk Co. Under $50,000.

†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston (selected list bidders), temporary bldgs., No. 175-43-Neg 389, Plymouth Co.

†**Utah, Salt Lake City**—Federal Works Agency, Newhouse Bldg., detention hospital. $200,000. C. W. Scott, 617 Dooly Bldg., archt. CD 3/19—ENR 3/25.

★†**Va., Arlington**—School Bd., Arlington Co., Court House, school, Va 44318. $517,000.

LOW BIDDERS

†**Ala., Anniston**—Federal Works Agency, Old Post Office Bldg., Montgomery, June 28, hospital bldg., Calhoun Co., from McDougall Constr. Co., Hemphill Ave. N.W., Atlanta, Ga., **$390,717.** Former bid rejected. CD 6/21—ENR 6/24, under CA.

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, miscellaneous bldgs., Houston Co., from Smith, Yetter & Griffin, Hotel Dempsey, Macon, over **$200,000.**

†**Nevada**—U. S. Eng., 1209 8 St., Sacramento 8, Calif., miscellaneous bldgs., Spec. 600, Nye Co., from G. E. Hall, 13260 30 St., Bakersfield, under **$200,000.**

★†**Ohio**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, June 17 temporary family dwellings, Ohio 33259 and June 14, temporary family dwellings, Ohio 38260, from A. L. Coupe Constr. Co. Inc., 430 E. Burnett St., Louisville, Ky., **$404,500** and **$249,500** respectively. CD 6/10—ENR 5/10 and 5/20 respectively.

†**Oregon**—Pub. Housing Auth., NHA, Alderway Bldg., Portland, June 25, remodeling housing, Ore. 35258, from Brennan & Cahoon, Pendleton, **$153,388.** CD 6/18—ENR 4/22.

†**Texas**—U. S. Eng., 25 St. and Avenue F, Galveston, June 28, bldgs., streets, roads, utilities, Galveston Co., from H. E. White, Tyler. Est. under **$500,000.**

†**Va., Norfolk**—Federal Works Agency, 606 State Planters Bank Bldg., Richmond, June 18, 2 school bldgs., Va. 44-318 and Va. 44-320, Norfolk and Norfolk Co., from A. Lloyd Goode Contg. Co. Inc., 1427 I St. N.W., Wash., D. C., **$178,000.** B. B. Spigel, Dickson Bldg., archt.

†**Washington**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, June 21, 80 unit housing, Wash 45221, from Chischolm & Eiford, 2120 Hawthorne St., Bellingham, **$154,000.** CD 5/27—ENR 6/3.

CONTRACTS AWARDED

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, dormitory units, Calif. 4706; and family dwelling units, Calif. 4707, to Lawrence Constr. Co., 3020 V. St., Sacramento, **$164,666.** Carl F. Gromme, Alberts Bldg., San Rafael, archt.

†**California**—Pub. Housing Auth., NHA, 3381 Kentucky Ave., Riverside, electrical contract for dwelling units, Calif. 4687, to H. C. Warren, 3172 Lemon St., Riverside. CD 6/21—ENR 6/24 under CA.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, electrical contract for dispensary bldg., San Francisco Co., to San Carlos Electric Co., 534 Laurell St., San Carlos. CD 6/22—ENR 6/24, under CA.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., Spec. 968, Central California, to Howson Bros., Gilroy. **Awarded** 6/28. CD 6/28—ENR 7/1.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, electrical contract for bldg., San Francisco Co., to K. F. Stolting, 1067 Fourth St., Santa Rosa. CD 6/25—ENR 7/1, under CA.

†**California**—U. S. Eng., 751 Figueroa St Los Angeles, Zone 14, addnl. hospital facilities, No. 1346, Orange Co., to Gorelnik Co., 1220 S La Brea Ave., Los Angeles, over **$100,000.** Awarded 6/24.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, housing, Spec. 983, San Francisco Co., to Willis F. Lynn., 1037 Ashmount Ave., Oakland. Awarded 6/29. CD 6/28—ENR 7/8.

★†**Calif., San Pedro**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., expansion personnel facilities, NOY 6231, to James I. Barnes Constr. Co., 1119 Montana Ave., Santa Monica, **$577,398.**

†**Connecticut**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., training school hospital bldg., separate contracts. Over **$150,000.** CD 4/14.

†**Delaware**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., temporary frame bldg., Contr. 697-Eng-4744, Kent Co., to Rupert Constr. Co., 1509 French St., Wilmington, **$100,000-$500,000**

†**D. C., Bellevue**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., 6 storehouses at Naval Magazine and Naval Research Laboratory, NOY 6189, to Harwood-Nebel Constr. Co., Inc., 1520 K St. N.W., Wash., **$241,000.** BA 6/14. CD 6/11.

★†**Florida**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., dormitory units, Fla. 8206, dwelling units, Fla. 8207 and 8210, to A. J. Honeycutt Co., Inc., 2512-8th Court N., Birmingham, Ala., **$512,711.** CD 6/30—ENR 6/10.

†**Florida**—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, bldg., etc., Neg-Jax-43-635, Sarasota Co., to The Artley Co., 504 E Bay St., Savannah, Ga., under **$50,000.** Awarded 6/12.

†**Illinois**—Borg-Warner Corp., Spring Div., Bellwood, 1 story, brick, rein.-con. addnl. plant facilities to Enjay Constr. Co., 160 N. LaSalle St., Chicago. Est. **$400,000** with equipment. Defense Plant Corp. will finance. J. V. Van Balen, 160 N. LaSalle St., Chicago, archt.

★†**Maine**—U. S. Eng., 31 St. James Ave., Boston, Mass., bldgs., No. 175-43-NEG 363, Aroostook Co., to T. W. Cunningham, Inc., 15 State St., Bangor. Est. **$500,000-$1,000,000.** Bids 6/19. CD 6/16.

†**Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, Zone 31, bldg., alterations, addns., Washtenaw Co., to Haberkorn-Barry Co., 719 Boulevard Bldg., Detroit, less than **$1,000,000.**

†**Missouri**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., addnl. bldgs., to Jones Bros. Const. Co., 1109 Byers St., Joplin***automatic sprinkler sys., to Fire Protection Co., 6601 S. Narragansett St., Chicago, Ill.***automatic fire sys., to American District Telegraph Co., 1416 Clark St., St. Louis, all foregoing in Newton Co. Total est. under **$200,000.**

†**New Mexico**—U. S. Eng., Albuquerque, electrical work for addnl. bldgs., facilities, Lea Co., to H. M. Nicholson Elec. Co., 939 S Bway., Los Angeles, Calif., **$2,100.**

†**New York**—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., housing, utilities, Hill 90, No. 43-257, Suffolk Co., to M. Spinelli & Sons Co., Inc., 38 Chauncy St., Boston, Mass. Est. **$100,000-$500,000.** Bids 6/24. **CD 6/16.**

†**Ohio**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, school, **FWA** Proj., Ohio 33902, to Hunkin-Conkey Const. Co., 1740 E. 12 St., Cleveland. Est. **$250,000.** Garfield, Harris, Robinson & Schafer, Natl. City Bldg., Cleveland, archts. **Awarded 6/23.**

†**Ohio**—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., 1 story bamnt., 48x96 ft., brick, concrete heating plant, Cuyahoga Co., to Carl E. Erickson Co., 7453 Broadway, Chicago, Ill. Est. less than **$49,999.** CD 6/30—ENR 7/8.

†**Okla., Pryor**—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., D. C., high school, Docket Okla. 34-159, to Southwest Builders, P. O. Box 821, Austin, Tex., **$176,300. FWA.** Bids 6/11. CD 5/26—ENR 6/3.

★†**Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., dwellings, Pa. 36434, to HRH Const. Corp., 9 E. 40 St., New York, N. Y., **$2,983,000.** Bids 6/30. CD 6/11—ENR 6/17.

†**Texas**—Pub. Housing Auth., NHA, 1205 Electric Bldg., Fort Worth, site imprvs. for family dwelling units, Tex. 41-574, to Hale & Ricks, Box 416, Bastrop, **$40,837.** Carter & Burgess, Century Bldg., Fort Worth, engrs. CD 6/17—ENR 6/24.

★†**Washington**—U. S. Eng., 800 3 Ave., Seattle, Zone 4, bldg., Snohomish Co., to Atherton Constr. Co., Terminal Sales Bldg., Seattle, Zone 1, **$100,000-$500,000.**

Ont., Midland—Wartime Housing, Ltd., 55 York St., Toronto, 50 temporary houses, to Hill-Clark-Francis, Ltd., Whitewood Ave., New Liskeard, about **$150,000.** Bids 6/18.

PUBLIC BLDGS. (Contracts awarded, Cont'd.)

Ont., Toronto—Municipality, reconstructing abattoir, Tecumseh St., day labor. **$65,300.** J. K. S. Gillies, City Hall, Comr., Bldgs. and engr. CD 6/17—ENR 7/1.

COMMERCIAL BUILDINGS

PROPOSED WORK

Conn., Bridgeport — Home Bldg. Co. of Bridgeport, 886 Main St., frame residential development, Ruth St., Englewood, Jewett and Goldenrod Aves. Over $150,000.

N. J., Bloomfield—Wittkop Holding Co., c/o McMurray & Schmidlin, archts., 969 Stuyvestant Ave., Union, 2½ story, U shaped, brick, garden apartment bldg.

N. J., Orange—Grand Constr. Co., 78 Lehman Ave., Deal, preparing plans fifty 2 story, bsmnt., frame, concrete block residences.

O., Cleveland—Chandler Homes, Inc., L. C. Chandler, pres., 3407 Rocky River Dr., thirty-three, 1 story, 25 x 27 ft., brick homes. $198,000.

O., Cleveland—M. Helper & Son, 719 National City Bldg., twenty-six 26x31 ft. and twenty-one 24x24 ft. homes. $373,000.

O., Cleveland—Jack Kelman, 10621 Bryant Ave., thirty-four 1 story, bsmnt., 25x29 ft. brick homes. $204,000.

O., Cleveland—L. Pitelnic, 3755 E. 154 St., thirty 1 story, bsmnt., 25x29 ft., brick dwellings. $180,000.

O., Cleveland—Provident Investment Co., J. F. Zook, Union Commerce Bldg., fifteen 2-family, 26 x 34 ft., brick houses, $150,000.

Pa., Phila.—Thos. Kelly & Sons, 7907 Provident Rd., 30 residences, West Oak Lane. $180,000.

Tex., Fort Worth—J. Driskell & Co., 4039 Locke St., 35 or more, frame type dwellings, facilities, utilities, etc., $150,000.

Tex., Galveston—First Mortgage Co., Esperson Bldg., Houston, 117 dwelling units, $150,000; 200 addnl. housing units, $225,000.

Tex., Houston—Plumb-Mitchell Co., 4522 Grigge Rd., 55 or more frame type dwellings, facilities, utilities, etc., force account. $225,000. CD 6/28.

Tex., Port Neches—Neches Homes, Inc., Port Neches, 27 dwellings, etc., force account. Approx. $150,000.

N. B., Saint John—Imperial Legion, Saint John, recreational centre for armed forces. $40,000 voted.

Newfoundland, St. John's—Allied Merchant Services Club, St. Johns, hotel. $150,000.

Ont., Etobicoke—Allen Industrial Estates Ltd., P. O. Box 595, 1 story brick dwelling, concrete block fdn. $150,000.

Que., Cedars—Reverend Brothers Sacred Heart, c/o Rev. Brother Anatole, dir., Cedars, agricultural orphanage and training school, residences, etc. $150,000.

Que., Montreal—Authentic Type Homes Co. Ltd., c/o A. M. Maron, 4925 Circle Rd., dwellings. $150,000.

Que., Montreal—J. H. Brien, 7170 Louis Hemon St., 100 bungalows. $275,000.

Yukon Territory, Whitehorse — Northern Commercial Co., Ltd., Whitehorse, office and commercial block. $150,000.

BIDS ASKED

O., Berea—Town House, Inc., S. Galvin, 1338 Guardian Bldg., Cleveland, soon lets contract, two 22 suite 3 story, brick apartment bldgs. $225,000. Garfield, Harris, Robinson & Schafer, Natl. City Bldg., Cleveland, archts.

★**Tex., Texas City**—Snug Harbor Homes of Texas, c/o M. S. Silverman, Rice Hotel, Houston, 450 dwelling units, facilities, utilities. $1,500,000. Herman Lloyd, 2006 W. Alabama St., Houston, archt. CD 6/29—ENR 7/1.

CONTRACTS AWARDED

Calif., San Diego—Krandill Mortgage & Investment Co., 2859 El Cajon Blvd., 14 frame, stucco apartment bldgs. Owner builds. **$154,000.**

Calif., Tracy—Balco, Inc., 5045 Cochrane Ave., Oakland, 50 wood residences, to T. M. Almquist, 5045 Cochrane Ave., Oakland. Est. over **$150,000.**

Conn., Milford—American Homes, Inc., 170 Broadway, New York, N. Y., thirty-one 1 story, 25x30 ft., frame housing units, Mayflower Pl. Owner builds. Over **$150,000.**

Conn., West Hartford (br. Hartford)—Capitol Constr. Co., G. J. Schilke, 18 Asylum St., Hartford, 36 unit, brick garden apartments, Robin St., to S. K. S. Constr. Co., 18 Asylum St., Hartford. Est. **$150,000.** CD 4/12—ENR 4/15, giving G. J. Schilke & L. S. Segal, 21 Asylum St., Hartford as owners.

N. J., South Bound Brook—Schwartz Land & Imprvts. Co., 154 Nassau St., New York, N. Y., 50 one story residences, separate contracts. **$225,000.** L. Kurtz, 15 W. 44 St., New York, N. Y., archt.

Pa., Grove City — Montgomery Builders, Grove City, 60 two story, brick dwellings, to C. B. and C. H. Montgomery, Grove City. Est. **$350,000.**

Pa., Phila. — P. Plotnick, 5731 Woodcrest Ave., Overbrook, 24 dwellings, West Queen Lane section, own forces. Est. **$150,000.**

★**R. I., Middletown**—Stockton Co., 705 Industrial Trust Bldg., Providence, 114 unit duplex frame houses, to A. F. Smiley Constr. Co., 308 Main St., Pawtucket, **$568,000.** CD 5/25—ENR 5/27, under CA Newport.

Pa., Phila.—Tulip Victory Garden Homes, 6032 Market St., 29 brick, concrete dwellings, Tulip St. between Magee and Hellerman Sts. Owner builds. **$150,000.** J. Fieldstein, Bankers Trust Bldg., archt.

Tex., Houston—Kelly, Inc., 1727 Palmetto St., 22 or more dwellings. Owner builds. Approx. **$150,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., Selma — DEHYDRATING PLANT — Selma Dehydrating Co., 16 tunnel dehydrating plant, $175,000-$200,000.

Ia., Amana—REFRIGERATION PLANT—Amana Society, plans by M. Anthony, 325 O.R.C. Bldg., Cedar Rapids, refrigeration plant bldg., $80,000.

O., Akron—PLANT—Firestone Steel Products Co., 1292 Firestone Pkwy., 1 story, brick, steel, concrete factory addn. $70,000.

O., Lisbon—FACTORY—Chester Mfg. Co., H. Wright, pres., made plans, 1 story, 50x260 ft., brick, steel factory, $40,000. E. G. Hoefler, 5005 Euclid Ave., Cleveland, engr.

★**O., Massillon** — FACTORY, etc. — Canton Drop Forging & Mfg. Co., C. A. Brauchler, pres. genl. mgr., 207 12 St., Canton, completing plans, old Fort Pitt Bridge Co. plant alteration, factory and office bldgs. $1,000,000. E. McGeorge & W. R. Hargett, 9400 Quincy Ave., Cleveland, engrs.

O., Painesville — FACTORY — Industrial Rayon Corp., Hiram S. Rivitz, pres., W. 98 St. and Walford Ave., Cleveland, brick, concrete factory addns. Over $150,000.

Ore., Columbia City—SMELTER—A. A. Muck and A. A. Muck, Jr., 6330 SE 36 St., Portland, 50 ton per day capacity sponge iron smelter. $40,000.

Minn., St. Paul—PRODUCE TERMINAL—Chicago, Rock Island & Pacific R.R. Co., F. W. Thompson, ch. engr., La Salle St. Sta., Chicago, Ill., fruit and produce terminal, Eaton and Fillmore Sts., south side Mississippi River, converting existing warehouse into modern terminal. $265,000.

Nebr., Lincoln—PLANT—Lincoln Packing Co., 320 N St., 4 story, brick plant bldg. $150,000.

N. J., New Brunswick—PLANT—E. R. Squibb & Sons, 745 5 Ave., New York, N. Y., plans by Abbott Merckt Co., 10 E. 40 St., New York, N. Y., 3 story, brick mfg. bldg. $39,000.

Tex., Ennis—PLANT—S. Ackerman, c/o Wonder Products Brand, 2724 Peabody St., Dallas, existing pickle factory expansion.

Tex., Houston — WAREHOUSE — Swanson Plumbing & Heating Co., 5600 Blk. Navigation Blvd., 70x150 ft., hollow tile warehouse, concrete fdn., etc. $40,000.

Tex., Palestine — PLANT — Know Glass Bottle Co., doubling existing plant capacity. Over **$40,000.**

Alta., Calgary—ENGINE HOUSE—Canadian National Rys., J. W. Porter, ch. engr. (Western Div.) Winnipeg, Man., soon lets contract 10 stall engine house. $40,000.

B. C., Paldi—SAWMILL—Mayo Lumber Co. Ltd., Paldi, saw, shingle and planing mills. $50,000.

B. C., Vancouver—FACTORY—Ruth Lake Lumber Co. Ltd., 202 Pacific Bldg., woodworking factory.

B. C., Vancouver—PLANT—Toba Inlet Logging Co. Ltd., 602 W. Hastings St., plant logging saw mill, etc.

B. C., Victoria—MINING PLANT—Hudson Bay Exploration & Development Co. Ltd., 500 Royal Bank Bldg., Winnipeg, Man., mining plant and development. $50,000.

N. B., Bathurst—MACHINE SHOP—Northern Machine Wks., Ltd., 7 Main St., Machine shop.

N. B., Edmundston—WORK SHOP and SCHOOL—Edmundston Industries, Ltd., 14 Church St., work shop and aircraft school. $40,000.

Ont., Goderich—PLANT—Holeproof Hosiery Co. of Canada Ltd., 14 East St., remodelling, exten. 3 story, 36 x 117 ft. plant.

Ont., Goderich — PLANT — Dominion Road Machinery Co. Ltd., East St., altering, installing equipment, plant bldg. About $45,000.

Ont., Hamilton — PLANT — Noury Aircraft Ltd., c/o J. O. Noury, aeroplanes mfg., etc. plant. $40,000.

Ont., North York (Toronto)—FARM BLDGS. —Toronto University, Simcoe Hall, Queens Park, Toronto, constructing, altering farm bldgs. and installing equip. at University Farm, Steeles Ave. $100,450. Col. A. D. LePan, supt. Mathers & Haldenby, 96 Bloor St. W., Toronto, archts.

Ont., Oakville — PLANT — Steeloy Mining Corp. Ltd., c/o Roy Robertson, mining, milling and reduction plant. $50,000.

Ont., St. Thomas—ENGINE HOUSE—The New York Central R.R. Co., J. [illegible] Pfaff, chf. engr., 230 Park Ave., N. Y., [illegible] engine house. $30,000.

Ont., Toronto—PLANT—Swift Canadian Co. Ltd., 1960 St. Clair Ave. W., [illegible] plant repairs. $49,200.

Ont., Toronto — PLANT — General Plastics Ltd., c/o J. S. Wright, 320 Bay St., mfg. plastic materials, machinery, [illegible] plant. $40,000.

Ont., Toronto — MANUFACTURING — National Waterproof Products Ltd., c/o W. P. De Roche, 320 Bay St., mfg. and processing oiled cloth rubberized cloth and associated products plant. $40,000.

Ont., Toronto — FACTORY — [illegible] croft, archt., 1154 Beaver Hall Hill, Montreal, Que., bids soon 2 story, L-shape, rein.-con. brick factory exten., for Aluminum Co. of Canada, Ltd., 158 Sterling Rd., [illegible] equipped. CD 4/14—ENR 4/22 $120,000.

Ont., Windsor — PLANT — Windsor Steel Products Ltd., c/o H. E. Kimmerly, Windsor, steel wood fibre and plastic mfg. plant. $40,000.

Ont., Woodstock—FACTORY—Canada Casters Ltd., 344 Dundas St., factory extens.

Que., Arvida—FURNACE BLDG.—Abrasive Co. of Canada, Ltd., furnace bldg. exten., corrugated asbestos siding, concrete fdn. $46,000.

Que., Brownsburg—FACTORY, etc.—J. B. Lepine Co., Brownsburg, sash and door factory and saw mill, etc.

Que., Chambord—COLD STORAGE PLANT —Agricultural Society Co-Operative of Chicoutimi, 21 Port St., Chicoutimi, cold storage plant. $40,000.

Que., Lapraire — PLANT — Ferdou, Registered, c/o Wm. House, St. George St., 40 x 125 ft, vegetable and fruit canning and dehydrating plant, cement block, St. Rose St., near Fabre St. $40,000. H. M. Hudson, 4823 Western Ave., Montreal, engr.

Que., Montmills (Postal District Quebec City)—MILL—Anglo-Canadian Pulp & Paper Mills, Ltd., Quebec City, mill reconstruction, exten. $40,000.

Que., Montreal—PLANT—Canadian Car & Foundry Co., Ltd., 621 Craig St. W., altering bldgs. at Turcat Works, $104,408, Spence & Burge, 2063 Union Ave., archts.

Sask., Summerberry—GRAIN ELEVATOR—Patterson & Co., Ltd., 609 Grain Exchange, Winnipeg, Man., grain elevator reconstruction, exten.

CONTRACTS AWARDED

Mass., South Lancaster—POWER STATION —Atlantic Union College, South Lancaster, 1 story, 55 x 145 ft., brick, concrete central power station, to L. Neri, 131 N. Main St., Millbury; electrical work by owners maintenance force. Total est. **$100,000.** A. J. Roy, 22 Elm St., Worcester, archt.

Mich., Detroit — WAREHOUSE — Gray Marine Motors, 2970 E. Jefferson Ave., brick, steel, rein.-con. warehouse, to Meisdorf & Brewe, 805 Donovan Bldg., electrical contract to W. D. Gale, 7145 Tireman Ave. Est. $36,000.

O., Cleveland — FACTORY and WAREHOUSE, etc.— Bissett Steel Co., G. Bissett, pres., 945 E. 67 St., 1 story, 26 x 80 ft., brick, steel, factory and warehouse, 2 story, 24 x 30 office bldg., to Demshar Builders, 874 E. 140 St. Est. **$40,000.**

O., Cleveland—PLANT—Browning Crane & Shovel Co., A. Cary, pres., 16226 Waterloo Rd., 2 story, 50x200 ft. rein.-con. warehouse, 1 story, 50x100 ft. machine shop, 1 story, 30x80 ft. processing bldg., 15x40 ft. locker and service bldg., all brick, steel, to Gillmore-Carmichael-Olson Co., 1872 E. 55 St. Est. $75,000. Awarded 6/22.

Ore., Portland—PLANT—Langville & Peterson, Inc., S.W. 17 Ave. and Linn St., 97x145 ft. rein.-con. bldg., site of present machine tool firm plant, to Geo H. Buckler Co., Lewis Bldg., **$40,000.** Wolff & Phillips, Pearson 6[illegible] Ave. Bldg., archts. Awarded 6/24.

Man., Winnipeg — PLANT — MacDonald Brothers Aircraft Ltd., 50 Robinson St., plant addn., to Bird Constr. Co., Ltd., 708 Confederation Bldg., **$184,000.** Northwood & Chivers, Nanton Bldg., archts.

Ont., Toronto—PLANT—Edison Lamp Works, 189 Dufferin St., plant exten., incl. equip., to Pigott Constr. Co., Ltd., Pigott Bldg., Hamilton, **$240,000.** Beck & Eadie, 220 Bloor St. W., archts.

Que., Montreal—WELDING and STORAGE SHOP—J. W. R. Wier, Ltd., 133 Nazareth St., 1 story, 80x95 ft., brick welding and storage shop, Price St. between Wellington and Common Sts., to James Thom & Co., 60 St. Catherine St. W., about **$50,000.** Lanson & Little, 660 St. Catherine St. W., archts.

Que., Montreal (Ville St. Laurent)—RESEARCH LABORATORY BLDGS.—McKenzie & Harrison, Ltd., 485 McGill St., Montreal, research laboratory bldgs., St. Mathieu St. near Cote Vertu, Ville St. Laurent, to Foundation Co. of Canada, Ltd., 1538 Sherbrooke St. W., about **$160,000.** Ross & McDonald, 1010 St. Catherine St. W., archt.

For Proposal Advertisements see p. 23

OFFICIAL PROPOSALS

Official notices of bids wanted on construction and related work, equipment and material for government, state, municipal departments and private enterprises

RATE: THE RATE FOR OFFICIAL PROPOSAL ADVERTISING IS 50 CENTS PER LINE (OR FRACTION) PER INSERTION

COPY RECEIVED UP TO 12 NOON TUESDAY FOR ISSUE OUT THURSDAY SUBJECT TO SPACE OPEN FOR LAST MINUTE ADS

SEND COPY TO OFFICIAL PROPOSAL DIVISION, ENGINEERING NEWS-RECORD, 330 W. 42ND ST., NEW YORK, N. Y.

(U. S. Government)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 24, 1943. Sealed bids (Specifications No. 1055) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 2 p.m., July 26, 1943, and will at that hour be opened, *for furnishing and delivering f.o.b. cars at the shipping point or f.o.b. cars at Friant, California*, at the option of the bidder, one 80-ton gantry crane and one 40-ton gantry crane for raising, lowering, and transporting gates on the upstream face of the Friant Dam, Friant division, Central Valley project, California. The gantry cranes will be installed by the Government. The specifications contain no provision for liquidated damages for delay. On June 17, 1943, the War Production Board issued amended preference rating order P-19-h, serial No. 92609, rating AA-3, for the materials required for the gantry cranes. No charge for copies of the specifications to prospective bona fide bidders; to others, $2.00 not returnable. For particulars, address the Bureau of Reclamation, Denver, Colorado, or Washington, D. C. H. W. BASHORE, Acting Commissioner. (153)

OFFICIAL PROPOSALS

Bids: July 26, 1943 (151)

Construction of Well, Pumping Station, etc.

FEDERAL WORKS AGENCY PROJECT
NO. N. Y. 30-219
VILLAGE OF FARMINGDALE,
NEW YORK

Separate sealed bids for constructing a gravel wall type well, pumping station and connecting pipe lines, together with all equipment and appurtenances thereto, will be received by the Board of Trustees of the Village of Farmingdale, New York, at the Village Hall, 361 Main Street, Farmingdale, L. I., N. Y., until eight o'clock P. M. Eastern War Time, on the 26th of July, 1943, and then at said Village Hall, publicly opened and read aloud.

OFFICIAL PROPOSALS

The Information for Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Forms of Bid Bond and Performance Bond may be examined at said Village Hall or at the office of the Consulting Engineers, Buck, Seifert and Jost, 112 East 19th Street, New York, N. Y., and copies thereof obtained upon payment of Ten ($10.00) Dollars for each set. Any bidder, and any non-bidder, upon returning such set promptly after the receipt of bids, and in good condition, will be refunded his payment.

The Village of Farmingdale reserves the right to waive any informalities in or to reject any or all bids.

Each bidder must deposit with his bid security in the amount of Two Thousand ($2,000) Dollars in the form and subject to the conditions provided in the Information for Bidders.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

No bidder may withdraw his bid within thirty days after the actual date of the opening thereof.

VILLAGE OF FARMINGDALE,
NEW YORK
June 23, 1943
By William A. Wesche, Village Clerk

Bids: August 2, 1943 (152)

State Highway Work

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for:

ROUTES 4 & 35 OAK STREET OVERPASS, SAYREVILLE

Construction of the deck and balustrade of the Oak Street Overpass on Routes 4 and 35, Borough of Sayreville, Middlesex County. The principal items of construction are:

Estimated:
192 cu. yds. Class "B" Concrete
315 lin. ft. Concrete Balustrade
5,720 sq. ft. Pneumatically Applied Mortar
24,230 lbs. Placing Reinforcement Steel

Bids for the above will be received at the office of the State Highway Department, Room 102, State House Annex, Trenton, New Jersey, on Monday, August 2, 1943, at twelve o'clock Noon, EASTERN WAR TIME, and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must submit a revised financial statement and statement of plant and equipment with their bid.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, New Jersey, and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon application to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made on the standard proposal forms in the manner designated in the State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00, and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in sealed special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: Spencer Miller, Jr.
State Highway Commissioner.

Official Proposals Columns of ENGINEERING NEWS-RECORD

are MUST reading, each week, for contractors, engineering-construction companies, equipment and materials manufacturers, all over the United States.

. . . and used regularly for over 50 years by government, state, county and municipal departments for advertising bids.

Official Proposal Division
ENGINEERING NEWS-RECORD
New York City

EMPLOYMENT OPPORTUNITIES

RATE: 10 CENTS A WORD, MINIMUM CHARGE $2.00

Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

Box Numbers in care of any of our New York, Chicago or San Francisco offices count 10 words additional in undisplayed ads.

Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

Copy for new advertisements received until 10 A. M. Friday for Thursday's Issue

POSITIONS VACANT

These Positions Vacant advertisements are published subject to agreement by the advertisers not to consider applicants now employed on war work unless they obtain written release from present employer.

WANTED Asphalt layer Foreman who can take complete charge of laying 75,000 tons Hot Asphalt pavement. Send brief outline of experience and salary expected in first letter. Man with following preferred. Write P-623, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

ESTIMATORS wanted immediately experienced in quantity survey and pricing of architectural trades for large industrial defense projects. Apply giving experience and salary. Location Detroit, Michigan. P-706, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

POSITIONS WANTED

DIVER: 21 years experience. Available now. Go anywhere. Also capable to act as foreman on heavy construction and dock work. PW-642, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

STRUCTURAL CONSTRUCTION. Civil Engineer 18 years experience, design, estimates and construction—all types of structures. Capable, efficient, responsible. Age 39. Location immaterial. Available immediately. PW-645, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION SUPERINTENDENT — General Foreman, age 39, U. S. Citizen, wants connection with contracts on foreign construction. 15 years experience charge of construction: concrete-utilities, grading on airports and buildings. Speaks English, Spanish, Portuguese fluently. Draft: 3B. PW-662, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION ENGINEER. Available July 1st to 15th. 25 years experience. Industrial Plants, Housing, Dams, Highways. PW-682, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

CEMENT FINISHING SUPERINTENDENT or Foreman. Age 49. Twenty-three years experience heavy industrial construction, private and governmental. Sober, industrious, efficient. Best of references. Available immediately. Go anywhere. PW-683, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

CIVIL ENGINEER-MANAGER, 44, graduate. Licensed in Wisconsin and Ohio. 20 years engineer, consultant, manager. Municipal, state and federal parks, housing, and industrial works. PW-686, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

ARCHITECTURAL AND STRUCTURAL ENGINEER. Reinforced Concrete, Steel, Masonry and Timber Structures. Good Draftsman. Available at once. P. O. Box 303, Jellico, Tenn.

CONTRACTORS ENGINEER, graduate 20 years wide experience building and general construction, estimating, design and supervision. PW-693, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

CHIEF ACCOUNTANT or Comptroller. Former Government Auditor thoroughly familiar with all phases of Defense Plant and Housing projects. Recently completed $5,000,000 job. PW-694, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

ENGINEERING EXECUTIVE—Chief electrical engineer, design and construction, industrial and public works. 35 years experience light and power design, Russian and American practice. Completing large naval project. Available in a month. PW-697, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONTRACTOR'S SUPERINTENDENT-MANAGER, extensive experience in commercial, industrial, and housing construction, available short notice. Well recommended. Anywhere, S or SW preferred. PW-698, Engineering News-Record 520 N. Michigan Ave., Chicago, Ill.

WANTED

ESTIMATOR

Nationally known producer of steel building products offers an excellent opportunity to estimator with background of general building estimating (structural steel experience preferred). Proper qualifications and follow-up will bring permanent position and advancement in fast-growing Detroit firm. Please state training, experience, other qualifications, and salary desired.

P-690, Engineering News-Record
520 No. Michigan Avenue, Chicago, Illinois

WANTED

City of Alma, Michigan, population 7,300 is receiving applications up to 8:00 P. M. July 20, 1943 for the position of City Manager. Such applications shall be filed with L. I. Hannig, City Clerk, and only by a Registered Engineer, stating experience and educational background.

POSITIONS VACANT

Salesman by manufacturer wellpoint systems and construction equipment. CMP, AA1 rating. Executive ability, construction background on foundation work. Experience selling construction equipment preferred. One to cover 500-mile radius based Jacksonville, other based Chicago. Real opportunity for a worker. Write detailed experience, draft status, references, salary desired, etc. Interviews New York, Chicago, or Jacksonville. Post-war prospects, especially good.

SW-675, Engineering News-Record
330 West 42 St., New York City

POSITIONS WANTED

CONSTRUCTION SUPERINTENDENT. Age 39. Twenty years varied experience on hydroelectric plants, dams, paving, drainage, buildings, docks, piers and shipways. Available immediately. Location immaterial. PW-699, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill

CIVIL ENGINEER, SUPERINTENDENT, available July 3rd, College Education, Registered, 32 years experience on all types of Building Construction, Railroads, Highways, Sewers and other utilities etc., References, apply PW-700, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION OR DESIGNING ENGINEER or Resident Engineer Available until July 15, to assume complete charge and full Responsibility for any size Construction Project. Age 50 Graduate Civil—New York State Registration. 30 years Experience over 20 in Responsible charge for the Planning of—Designing of and the Supervision of Millions of dollars in Both New and Reconstruction. Heavy Industrial Developments—Factories—Warehouses — Power Houses—Administration Bldgs.—U.S. Defense Programs etc. Covering all Phases from Difficult Foundations to the Completion of Superstructures—either Reinforced concrete or Structural Steel. Have just finished the second of two large U.S. Defense projects in Pittsburgh area. Have necessary authenticated Release Papers. Will accept either Field or Office Obligation or Both—with any Reputable Industrial Plant Organization or with the owner's Consulting Eng'r., or Architects. Location within New York State, preferring Niagara Frontier. Wire or Write PW-704, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

POSITIONS WANTED

OFFICE EXECUTIVE chief clerk and paymaster, with field auditing, accounting and extensive diversified construction and commercial experience. Capable for large construction work. Know government procedure and re-negotiation. College education, married, 43 years old. PW-701, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

ENGINEER, graduate. Construction and design. Last 3 years on T.N.T. and Smokeless Powder plants. Process piping, general utilities, buildings and equipment. Prior work on bridges and highways. Available by August 1st. Desire responsible position in construction work or industry. Married, family. PW-705, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

A Railroad General Track Foreman with thirty years experience. Qualified for railroad construction work also maintenance. Will accept a position anywhere. PW-702, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

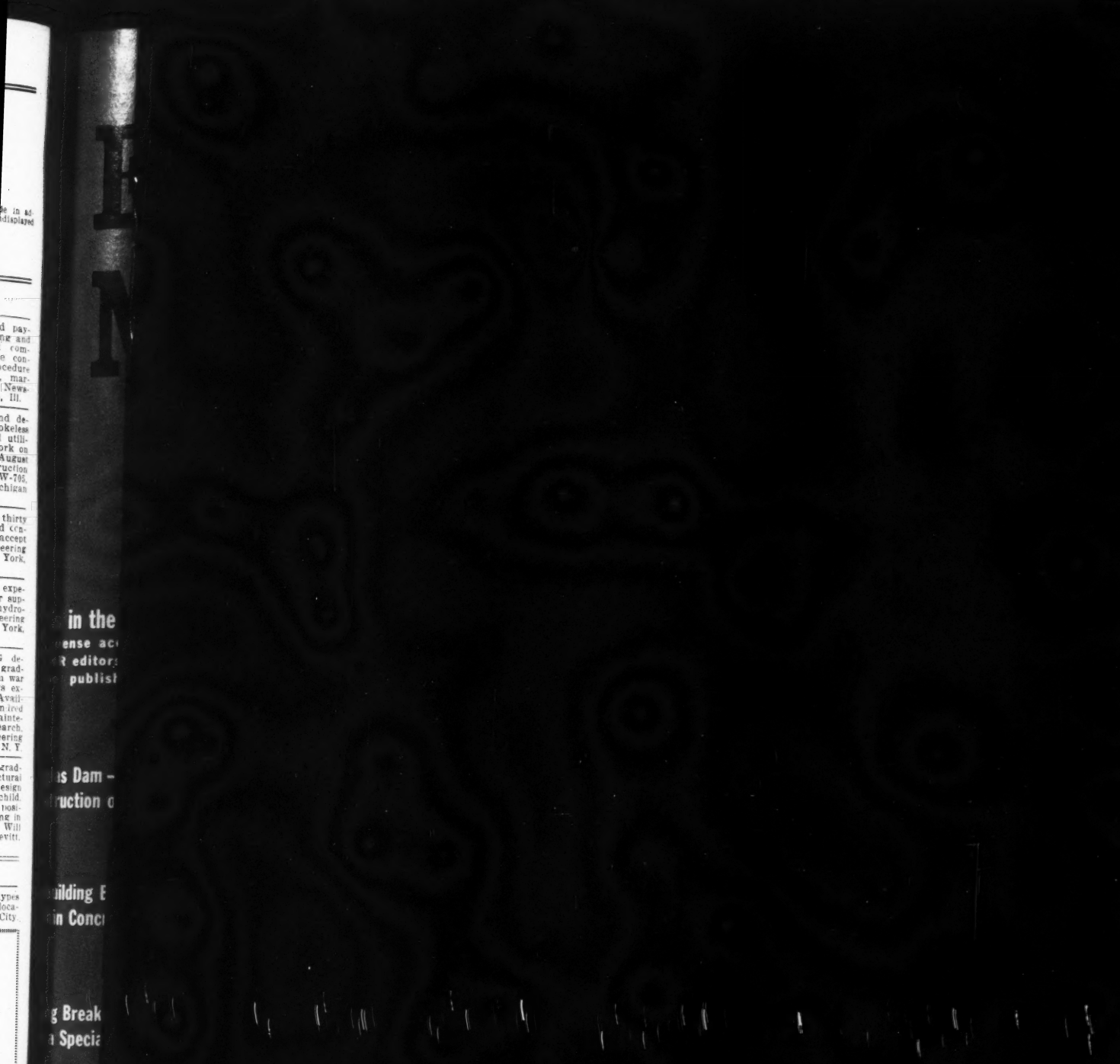
CIVIL ENGINEER graduate; 34 years experience; design and construction; water supply; industrial plants; power plants; hydroelectric developments. PW-703, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

EXECUTIVE INDUSTRIAL BUILDING design, structural and maintenance. 45, graduate, registered. Completing sixty million war plant 1½ years chief designer, 25 years experience factories, layout and design. Available immediately. Present salary six hundred month. Prefer permanent position as maintenance or plant engineer, structural research, steel, concrete or timber. PW-692, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

STRUCTURAL ENGINEER, 28, M. I. T. graduate, 7 years varied experience in structural design. Now completing responsible design work at large Air Base. Married, one child, present draft status 3B. Prefer responsible position in any phase of structural engineering in Middle Atlantic or New England States. Will travel. Available August 15th. Stanley Levitt, Box 525, New Bern, N. C.

WORK WANTED

EQUIPPED SURVEY PARTIES for all types of surveyor construction work. Any location. Harwood, 258 Broadway, New York City.

ENGINEERED construction work needs competent men. There is no quicker nor more economical way of finding these men than through "Searchlight" employment advertising. It is used regularly by many of this country's largest contractors when they want trained engineers, experienced executives, or ambitious juniors.

DEPARTMENTAL STAFF
330 West
42d Street
New York City